FIELD SPORTS

IN

THE UNITED STATES,

AND

THE BRITISH PROVINCES OF AMERICA.

BY FRANK FORESTER.

IN TWO VOLUMES.

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FIELD SPORTS

OF THE

UNITED STATES AND THE BRITISH PROVINCES.

SPORTING DOGS—*Continued.*

KENNEL MANAGEMENT.

THE first point in kennel management is the kennel itself, and, for a person keeping several dogs, the best and most suitable to this country is an enclosure of pickets, sufficiently high to render it impossible for dogs even to attempt to leap over them, surrounding a space of ground the larger the better, as the dogs will then have room enough to run at speed, and to play together, which is undoubtedly conducive to health. This space should be gravelled, or strewed with fine sand, and if it could be so contrived as to have a channel of water running through it, that would be a great addition, both to the health and comfort of the dogs.

Along one side or end of this place should be a shed, closed at the back and ends, with a shingle roof, at least ten feet deep, so as to afford a complete shelter from snow, rain, and sunshine. This shed, which should be open in front, must be floored with plank,

with a moderate inclination, so as to allow any moisture to drain off readily. The opening should face the south. Along the back of this shed should be ranged a row of ordinary dog-houses of pine plank, one for each dog. These should have no bottoms, that they may be removed, and the boards scoured beneath, from time to time. They should not be less than three feet in length, by two in breadth, and two feet high at the eaves, by three at the ridge. The smaller the aperture the better, provided it is big enough to allow the ingress and egress of the dog. The inside should be white-washed; and the very best bed that can be devised is fine pine shavings, as it is as soft and warm as any, and the turpentine which it contains is the surest of all antidotes against vermin.

For persons living in towns, not having the command of space, or keeping but a single dog, the moveable dog-house, such as I have described, placed on a plank platform, and having a post annexed, to which the dog may be chained, will answer the purpose, though if a dog is kept constantly chained up, he should have regular exercise. If such a kennel as I have mentioned be used, each dog should at first be chained to a staple adjoining his own house, to which he will soon become so perfectly accustomed, that he will never attempt to enter that of his neighbour; and if they are watched at first, and punished if they quarrel, they will live harmoniously enough; provided always that no bones or scraps of food be ever suffered to remain in the kennel to breed contention, and that none of the fair sex—to dogs, as to men, *teterrima belli causa*—be allowed to be at large among the males, in those seasons when they are most obnoxious to addresses. Setters are much less quarrelsome than Pointers, but steadiness and firmness will keep peace even among the latter.

It is unnecessary to say that the kennel, whether for one or many dogs, cannot be kept too scrupulously clean; as the least collection of dirt not only renders the animal uncomfortable to himself, and offensive to

others, but promotes humours, and is a moving cause of some of the worst disorders.

Where it is not found practicable to have a channel of running water through the kennel, each dog should be provided at all times with his own large earthen pan of water, which should be kept continually fresh and renewed; and in each pan there should be at all seasons a piece of bar brimstone, but especially in summer. This, acting as an alterative and gentle purgative, will keep the bowels in good condition, cool the blood, and preserve the softness of the coat.

It will be found an excellent plan to feed all the dogs, if several, at once, from one long common trough, into which the food should be poured, in regular order, and the dogs then called out one by one, by name, from their houses, to which they should previously be compelled to retire, and none suffered to approach until so summoned. The feeder should stand over them, while feeding, with a switch, and the first growl, or indication of an attempt to quarrel, should be punished with a smart cut; any voracity, in like manner, can be checked or moderated by a word; and if any dog eat so ravenously, as to get more than his share, he must be quietly, but firmly, called off, and ordered to his own kennel. By this method, order, regularity, and obedience will be greatly increased in the kennel, and, what is of more importance, the general good humour and good understanding of the dogs will be greatly promoted, so that if, as may often become necessary, as, for instance, in travelling on board steam-boats, or in other places where accommodation is difficult and scanty, you should be compelled to feed your dogs out of one vessel, they will eat together cheerfully and agreeably, and lie down to get their rest as good friends, instead of fighting a pitched battle over the plate, and growling at one another all night long, instead of going peaceably to sleep.

Attention to little matters of this kind is of great real importance. A fight between a brace of dogs may deprive the owner of the services of one, or both, for

half a dozen consecutive days; and so destroy the sport of a week, on which he has counted, and for which he has, perhaps, incurred considerable trouble and expense. Even the loss of a night's rest will render dogs peevish, deprive them of their noses, and make them dull and listless during half a day. The subject of feeding is of great importance, and of it I shall treat somewhat at length, after observing that frequent washing and bathing is of exceeding benefit to dogs in fine weather, when they have suitable conveniences for drying themselves. After a swim, or a hard day's shooting in snow, or in marshes, a good wheaten straw bed is the best restorative; and that is the only time when I approve of straw for a bed, as it is heating, and has a strong tendency to harbour vermin. To curry a dog, or comb him with a horse's mane comb, and then brush him thoroughly, will be found to contribute to his cleanliness, comfort, and health, in a far higher degree, than the trouble of seeing it done will incommode the sportsman. A little method, and the regular observance of hours, will render all these things easy, and they will soon come to be regarded by the servant as matters of every day occurrence, and as such to be done, and the trouble disregarded.

With regard to feeding, (a question on which very much of the condition, and not a little of the olfactory powers of the dog,) Mr. Blaine, in his great work on Canine Pathology, asks the following question, and proceeds forthwith to answer it.

"*What is the best food for dogs?* An examination of this animal must end in determining that he is neither wholly carnivorous, nor wholly herbivorous, but of a mixed kind; intended to take in as well vegetable as animal matter, and formed to receive nourishment from either. He is furnished with sharp cutting teeth for tearing flesh, and he has also tolerably broad surfaces on other of his teeth, capable of grinding farinaceous substances; his stomach and intestines likewise hold a middle place between those of the carnivorous and

herbivorous tribes. At the same time, both his dental and digestive organs appear rather more adapted to the mastication and assimilation of animal and vegetable matter; to which also his habits and partialities evidently tend. He is by nature predacious, and intended to live on other animals; the stronger he hunts in troops, the weaker he conquers singly. Yet still it is clear that his organs fit him, when necessary, for receiving nutriment from vegetable matter also, and we likewise see that he voluntary seeks it, probably as a necessary mixture, to prevent that tendency to putridity, which too great a quantity of animal food begets. It is a received opinion among many sportsmen, that flesh-feeding injures the scent; but it cannot do it naturally: for the fox, one of the caninæ, which is known to be by choice wholly carnivorous, principally lives by the exquisite sensibility of his olfactory organs. If the eating of flesh really have such an effect on sporting dogs, it can only do so when it has been taken in such quantities as to vitiate the secretions of the body; and in this way the pituitary mucous secretion of the nasal sinuses may themselves become somewhat tainted.

"*A mixture of animal and vegetable substances is therefore the most proper general food for dogs*, and that which best agrees with the analogies of their nature; but the proportions of each are best determined by the exertions of the body."

I do not, I confess, lay any stress whatever on the argument drawn from the natural state of the *caninæ*, or from the habits of the fox, since it is too notorious to require comment, that animals in a high state of cultivation, not only acquire new wants as well as new habits, but lose many of their natural qualities and instincts. And I am thoroughly convinced, that the habitual feeding of dogs on flesh *has* a tendency to injure their powers of scenting; and I believe the reason why it does so, is precisely because it *does* "vitiate the secretions of the body" generally, and therefore does affect "the nasal sinuses."

I have observed many times, that dogs fed largely, even on perfectly *fresh* animal food, particularly in a raw state, become intolerably offensive in odour; and when this is the case it is certain that the secretions of the body *are* vitiated, and probable, moreover, that the health of the animal is in some sort affected likewise.

That flesh is necessary to dogs, I will not, however, deny; and it is my opinion that, during the dead seasons of the year when there is no field work to be done, except exercise, flesh may be given not only without detriment, but with advantage. Raw meat tends, unquestionably, to give a dog both strength and ferocity; and the latter is so nearly allied to endurance, and what is commonly called *pluck*, that we can scarcely encourage the one quality, apart from the others.

I would therefore feed dogs, while getting them into condition, on flesh—and I would not even object to raw horse-flesh for that purpose—without stint, save that of their own appetites, having care to give them a sufficiency of sulphur in their water to keep their bodies open.

Well-fed, nay even rendered fat, upon this strong and hearty food, and worked down into hard flesh and sound condition by constant, and, toward the commencement of season, *sharp* and *fast* exercise, Setters or Pointers will have raised such a stock of muscle, and will be so high in courage, that they may safely dispense with all solid animal food during the prevalence of the shooting season.

We have one advantage in this country over the residents of Great Britain, in regard to dog-feeding, that whereas both oat and barley meal are apt to heat the blood of the animal to such a degree as to produce cuticular eruptions and redness, not very dissimilar to mange, we possess in the meal of the maize, or Indian corn, a substance admirably adapted to the food of the dog; which, moreover, has a tendency to act on him as a slight and gentle alterative.

This I consider to be the perfection of dog-food, and the following is the best way of preparing it.

Take a caldron half full of wa[illegible] set it over a small furnace, and when boiling cast in a handful of salt; then stir in the meal, keeping the water still boiling, until it has attained the consistency of very thick porridge. Remove it from the fire, and let it cool gradually, running the blade of a knive round the side of the pot, which will prevent its adherence to the metal. When cold, it will have hardened into the consistency of stiff batter pudding, and than this, either alone, or with milk, butter-milk, or pot-liquor, no better food can be given to hunting-dogs. Observe, however, that the pot-liquor of ham, salt-pork, salt-beef, or the like, is objectionable; as is the fat, grease or scraps of such food; the excess of salt having a tendency to produce a very obstinate species of mange.

For a person who keeps several dogs, there is no better mode than to let the butcher regularly supply him with sheep heads, which will cost a mere trifle, at the rate of one for each dog every second day. These boiled completely to rags, and the residuum added to the meal, will leave no desideratum in the way of feeding.

It is well to observe that vegetables of almost any kind, as potatoes, carrots, parsnips, and even cabbages, may be added to this mess, and that to the dog's great advantage. The quantity may be gradually increased, beginning with so small a portion that the flavor of the mess shall not be altered, until the dog will eat the vegetables almost alone. The best kennel huntsman I ever knew in England, was in the habit of feeding his dogs one day in six, during the hunting season, and twice a-week during the rest of the year, on vegetables and meal only, without flesh, and I never saw dogs stouter and finer in condition.

Dogs should be supplied freely, if kept chained up in cities, where they cannot procure their natural herbaceous emetic, with the common dog-grass, or queech-grass, *triticum repens;* and where this cannot be obtained, should occasionally have an emetic given them,

consisting of tartarized antimony—*emetic tartar*—from one to three grains, in proportion to the size of the dog. It can be given most readily, mixed with lard or butter into a small ball; or between two slices of meat, when the dog is hungry. Common salt, in doses varying from half a small teaspoonful to one and a-half, in proportion to size, may be administered as an emetic; but it is violent in its action, and should therefore be used only when no other can be readily obtained.

When dogs have been very fat previous to the commencement of the shooting season, and strong exercise has been brought into play to reduce and bring them into perfect condition, a few gentle doses of purgative medicine will be of great service to the animal, and will improve all his powers, both of speed, endurance, and scent.

"The term condition," says Mr. Blaine, "as applied to dogs, is correspondent with the same term as used among horses, and is intended to characterize a healthy external appearance, united with a capability, from full wind and perfect vigor, to go through all the exercises required of them. It is, therefore, evident that condition is of material consequence to sportsmen; indeed, it is of infinitely more importance than is generally imagined. What would be thought of that sporting character who should enter his horse for racing without any previous training? and how much chance would he be presumed to have, even to '*save his distance*,' without this precaution? Is it not equally reasonable to suppose that Pointers, Setters, Spaniels, and, more than all, Greyhounds*, require training; or, in other words, to be in full *condition* also? It is notorious, that Pointers, Setters, and Spaniels, if they are what is

* I was, at first, about to omit that part relating to Greyhounds, as in consequence of there existing no animal in the Eastern States fit for their pursuit, and consequently no field for their powers, they are useless, and only kept as pets. I am, however, so well assured that they *must* come into use to the Westward, and that the finest sport conceivable might be had with them on the prairies in pursuit of the Deer, the Antelope, and with the large Scotch wiry breed of the Elk and Wolf also, that I have resolved to retain the whole passage.

termed *foul* in their coats, never have their scent in perfection. It must be equally evident that, unless they are '*in wind*,' they cannot range with speed and durability; and without some previous training, it is impossible they should be so. Those persons, therefore, who expect superior exertion from their dogs in the field, would do well to prepare them by a previous attention to their *condition*. In Greyhounds, intended either for *matches* or for *simple* coursing, it is evident that this is absolutely necessary to insure success. In simple coursing, they are pitted against an animal very nearly equal in speed to themselves, and always in *condition* by its habits. If, therefore, a dog of acknowledged goodness is beaten by a Hare, especially at the beginning of the season, it is ten to one but the *condition* of the dog is at fault. It is self-evident that perfect condition must be more than equally important in coursing *matches*, where a dog has two competitors to beat, the Hare and the other dog.

"*The manner of getting dogs into condition is very simple*, and either consists in rducing the animal from* too full and soft a state to one of firmness and less bulk; or it consists in raising a lean and reduced dog to lustiness, hardness, and vigour. Some sportsmen prefer the one state, and some the other to begin upon. If a dog be fat, his treatment must be entered on by physic and sufficient exercise, but not by too great a privation of food; and it must be particularly observed that his doses of physic be mild, but more in number. The exercise should be at first gradual and slow, but long continued; and at last it should be increased to nearly what he will be accustomed to when hunting. If there be the least foulness—*i. e.*, if the secretions of the skin are impure—apparent in the habit, besides physic and exercise, alteratives should be given also: these medicines immediately follow the subject of *condition*. Some

* This I conceive to be the true, and by far the easiest mode. It is easy to reduce fat into solid flesh, but very difficult to raise leanness into muscle, and preserve hardness at the same time.

sportsmen regularly dress their dogs, before the hunting season, with sulphur, even though no breaking-out appears, and I by no means think the practice a bad one. Others curry or brush their dogs, whether any skin affection appears or not; and, to Greyhounds, it is a very proper means of keeping up the equilibrium of the circulation, and of promoting muscular elasticity. When a *lean* dog is to be got into *condition*, less physic is necessary; but good flesh-feeding, plenty of exercise, and a due administration of alteratives, are principally to be resorted to; nevertheless, one or two doses of very mild physic will here also promote the condition, and even assist the accumulation of flesh."

ALTERATIVES.

"Various substances are used as *alteratives;* as antimonials, and the different preparations of mercury, iron, and tin. The nitrate of potash (*nitre*), the supertartarate of potash (*cream of tartar*), aloes, salines, &c., &c., &c., are excellent alteratives. Tartarized antimony (*emetic tartar*) often proves a very useful alterative in the chronic asthmatic cough to which dogs are subject, given as an emetic once or twice a-week, in doses of one grain to three. Antimonial powder, or James's powder, may also be given with benefit as an alterative in similar cases. Crude antimony is often found useful in the diseases of the skin; but it is unfortunately very uncertain in its operation; that is, some dogs will bear a considerable quantity, while others cannot even take a small one without violent sickness; the usual dose is from half a scruple to half a drachm. Nitrate of potash (*nitre*) is a very useful alterative to dogs, for hot itching humours and redness of the skin, in doses of four grains to ten. The supertartarate of potash (*cream of tartar*) may be so given likewise with benefit in larger doses, in the same cases: all the preparations of mercury, though excellent alteratives, require great caution when frequently repeated, or regularly given; for dogs are easily

salivated, and salivation produces very hurtful effects on them."

LAXATIVES AND PURGATIVES.

"These evacuants are both *preventive* and *curative* of disease: they are valuable *alteratives*, and active *immediate* agents in acute affections. By opening the bowels, we remove a frequent cause of irritation to the system; and a very considerable source of skin affections also; for whatever is taken up superfluously by the system is apt to find itself an outlet there. We thereby likewise prevent pulmonary congestion, and deposits of fat, which would obstruct the visceral functions. *Laxatives* are good preventives against that habitual costiveness common to dogs and all other carnivorous animals: such, therefore, as are flesh-fed should have this tendency obviated by laxatives; and the best which offers itself is a portion of vegetable matter with their flesh food: potatoes, or even greens, can always be procured, and will answer the purpose. This is the more necessary, for costiveness sometimes occasions fatal obstructions; and a costive habit brings on fistulæ, and also affords encouragement to the breeding of worms. Medicinal laxatives are numerous. Epsom salts—*sulphate of magnesia*—dose, one drachm to two; castor oil, two drachms to four; syrup of buckthorn, the same quantity, will either of them answer this end, the quantities being increased if those mentioned are not found sufficient: but as these directions are intended to meet the tender pet of the drawing-room, as well as the strong inhabitant of the kennel, so it is prudent to specify the minor dose: more may be added, but it is too late to subtract when too much has been given.

"*Purgatives* may be made by increasing the doses of any of the laxatives. Jalap is not a bad purgative to dogs, but it is uncertain, some being little affected by it; rhubarb is equally so; senna I have no experience of; gamboge is very drastic; calomel is an excellent auxiliary to other purgatives on some occasions; but

given alone it is apt to deceive, by proving more emetic than purgative; neither will the stomach or bowels bear a sufficient quantity without producing much derangement in the system, as violent vomiting, tenesmus, and sometimes sudden salivation. Aloes form the safest general purge to dogs; and such are the peculiarities of the canine bowels, that while a man can take with impunity as much calomel as would kill two large dogs, a moderate-sized dog will take a quantity of aloes sufficient to destroy two men. The smallest dog can take fifteen to twenty grains; half a drachm is seldom too much, but the smaller dose had better be tried first: medium-sized dogs usually require a drachm, and some large dogs have taken more than two drachms: I have given three to a strong Newfoundland dog without extreme catharsis; but, as before observed, dogs differ much in their different habits, and it is therefore most prudent to begin with a dose too small than too large: hundreds of dogs are every year destroyed by temerity in this particular. Whenever a purgative is administered, let the dog have some vegetable food, if possible, a day or two previously; an active cathartic, given soon after a full meal of flesh or bones, might destroy by hurrying the undigested food into the intestines, where it might form such an impacted and obstructing mass as could not be overcome: it is prudent to place before the dog some broth, milk, &c., to assist purgation. Let me warn sportsmen who are putting their dogs *through a course of physic*, for hunting or coursing purposes, to be aware, that it is not the inordinate strength of the dose which does good; on the contrary, violent physic often defeats its own purpose: it is a mild and repeated emptying of the bowels which unloads the system at large, and at once strengthens the solids and purifies the fluids."

This, I believe, is all that need be said, in this place, with regard to general medical treatment, except in cases of specific disease, where the aid of a medical assistant of some kind would of course be called in;

and directions for the treatment of which cannot be contained within the compass of such a work as this. In consequence, however, of the great prevalence of two or three maladies, as canine distemper, worms, mange, and the like, with some common injuries arising from local accidents, I shall here add a few short recipes for the treatment of these troublesome maladies, which will be, I think, sufficient to guide the sportsman in any ordinary cases.

Occasional bleeding is of great benefit to dogs. It is most readily performed by holding the head of the animal up, passing a ligature round the lower part of the neck, which will cause the jugular vein to swell at about an inch from the windpipe, and then puncturing the vein with a common thumb lancet. The only care necessary is to avoid inserting the lancet so deeply as to sever the vein. If the hair is thick and long, it may be requisite to clip, or even shave the spot, before effecting the orifice. No pin or ligature is necessary to close the wound. In case of fits, or any sudden emergency, a clip in the ear, if no lancet is at hand, will answer the end.

The quantity of blood to be drawn from a dog will vary according to the size of the animal, from one to two oz., in a very small dog, to six, seven, or eight in a very large one, proportionably to the nature of disease, and the violence of the symptoms.

The pulse of the dog may be felt at the heart, and at the inner side of the protuberance of the knee. The range of pulsation between a very large and a very small dog, is not less than 20. Thus, if 100 be taken as the usual number for the former, and 120 for the latter, whatever is found much to exceed this may be ascribed to the inflammatory state.

The following brief rules for the treatment of a few of the most common diseases and injuries to which dogs are liable, are from Messrs. Blaine and Youatt. They are all *safe*, and will, I think, be found sure.

DISTEMPER, OR SPECIFIC CATARRHAL DISEASE.

The term of distemper, though in itself a very absurd and indefinite term, has become so conventional that it cannot readily be dispensed with, as by this name and no other it is generally known.

Whatever it might have been in the first instance, it it now a constitutional canine endemic, from which few individuals escape. It is at times epidemical also, and is then pecularly fatal. It greatly varies in form, and, particularly when it assumes the shape of an epidemic, has some peculiar characteristic type, sometimes tending to diarrhœa, sometimes to epilepsy and sparms, and sometimes, the most fatal of all, to a putrid habit.

It is unquestionably contagious, but it is, as I have stated, endemical and epidemical also, and it is also self-generated. It affects dogs at all ages, from mere puppies of five or six weeks, to adults of as many years. It occurs also many times in the same individual, and dogs have been known to escape it thrice and perish by a fourth attack. This is, however, fortunately uncommon. In the most highly-bred dogs it is the most fatal, and I have generally observed it to be especially dangerous to the smooth-haired races, as Greyhounds and Bull-terriers. With Newfoundland dogs, at times, it makes sad havoc. Its symptoms are so various, that it is not easy to set before the reader any distinct or strict diagnostic signs, yet it is not difficult, on the whole, of detection.

A dry, husky cough, followed by a loss of spirits and appetite, the staring of the coat, and a thin watery dis charge from the nostrils and eyes, gradually instead of limpid becoming muco-purulent, are usually the earliest symptoms of the disease; though at times the discharge does not appear, or is quickly arrested, and followed by convulsions, which usually terminate the affair very quickly.

When *the symptomatic epilepsy of distemper* occurs, if the attack can be arrested with the occurrence of a

single fit, the dog often recovers, but if one is followed by a second, the case is usually hopeless.

The virulent or putrid type of the disease marked by a bloody and fœtid discharge from the nose, eyes, and sometimes even from the ears, and by bloody, mucous and bilious evacuations of the bowels, is, I think, so almost invariably fatal, that the most merciful method is at once to destroy the animal, as an act of kindness to himself, as well as a means of preventing extended ravages by contagion.

Again, distemper often leaves behind it a species of paralysis, with nervous twitchings of the limbs, similar to *chorea* or St. Vitus' dance, which continually increase, until it ends in convulsions and death, though it will at times slowly and entirely disappear.

The treatment of distemper must therefore necessarily vary greatly, and it is needless to add that although almost every sportsman and breeder has, what he believes, an infallible remedy—there is no such thing as a general specific for its cure or prevention.

The best plan generally is to commence operations with a mild purgative or emetic, such as have been prescribed under the head of General Treatment.

If there is very much cough, or the pulse be very greatly excited, bleed from three to six oz., according to the age and size of the dog. If bleeding is adopted, use a *very mild* purgative.

The best emetic is

Calomel, . . ½ gr. Tartarized antimony, . ½ gr.

This formula is for the smallest dog. The *largest* may require of each 2 grains.

After the bowels are cleansed and the body thus depleted,

R. Antimonial powder, 2, 3, or 4 grs. Nitrate of Potash, 5, 10, or 15 grs.
Powdered ipecacuanha, 2, 3, or 4 grs.

Make into a ball, according to size and age, and give twice or thrice a-day, as the symptoms are more or less urgent, diminishing the dose if it produces sickness.

If the cough is very distressing, add to each dose

Foxglove, *Digitalis*, ½ to 1 gr.

If no farther symptoms occur, repeat the emetic every third or fourth day, and keep the bowels open, but strenuously avoid any thing like active purgation.

In case of *diarrhœa* supervening,

R. No. 1.—Powdered opium, 5 grs. Powdered catechu, 2 drs.
Powdered Gum-Arabic, 2 drs. Prepared chalk, 2 drs.
Powdered ginger, ½ dr.

Make into twelve, nine, or six balls, with conserve of roses, and give from once to four times a-day, *pro re nata*.

If this does not suffice,

R. No. 3.—Magnesia, . 1 dr. Powdered alum, . 2 scr.
Powdered columba . 1 dr. Powdered Gum-Arabic, 2 drs.

Mix with six ounces of boiled starch, and give a dessert or a tablespoonful every four, six, or eight hours, *p. r. n.*

In case of *epileptic fits* being foreseen, by sudden restlessness, animation, brightness of the eyes, and convulsive twitchings of the face and jaws, give a brisk emetic, followed by a brisk purgative, and insert a seton in the neck, the tape smeared with blistering ointment. If repeated attacks succeed, give the following formula to a medium-sized dog, half the quantity to a small one, in a spoonful of ale every two hours,

R. Æther, . . 1 dr. Tincture of opium, . . ½ dr.
Camphor . 6 grs. Spirits of hartshorn, . 1 dr.

Place the dog in a very warm bath for twenty minutes, and keep him warm and moist by wrapping in wet flannel before the fire, for several hours afterward. Give nourishing food, and keep quiet.

If *chorea* or *paralysis* follow distemper, use the seton as above, stimulate the spine by rubbing the whole course of it with tincture of cantharides, and as a tonic

R. Nitrate of silver, very fine, 3 grs. Carbonate of iron, powdered, 2 drs.
Gentian, powdered, 3 drs.

Conserve of roses sufficient to make six, nine, or twelve

balls, of which give one every night and morning, if the stomach will bear them.

Frictions, liberal feeding, strong soups, and cold baths, may aid in this stage of the disorder.

These directions are abridged from Blaine and Youatt, and contain, I believe, the best remedial course that can be used.

For the disease under its ordinary type, the practice above detailed will be found all-sufficient, and even when diarrhœa sets in, there is no occasion to despair.

I must say, however, that although I have thought it advisable to insert formulæ for the treatment of the epileptic fits, and of the *chorea* or paralysis of distemper, I have never seen the fits conquered where two or three have occurred, and the *chorea* never.

When paralysis or chorea follows, I would myself kill the animal as an act of mercy. For the putrid or malignant type of this disease, I have not thought it worth the while to prescribe any treatment, as it is all but incurable.

WORMS.

For worms, an ailment to which dogs are extremely liable, and which is very troublesome, and at times, even dangerous, the following formula is safe and unexceptionable:

R. Cowhage, *Dolichos pruriens*, half a drachm.
Tin-filings, *very fine*, 4 drachms.

made into four, six, or eight balls, with lard, according to the size of the patient, exhibit one every morning, and afterwards administer a purgative, such as Epsom salts, or castor oil, or a very slight mercurial dose, not exceeding 4 grs. of calomel in combination with aloes.

POISONS.

For any mercurial poisons, the best remedy is the white of eggs, beaten into a liquid, given in large quantities, and repeated as often as they have been ejected. Mild clysters may be thrown up, and when the stomach

is appeased, give an opiate and castor oil. When eggs are not at hand, large doses of soap dissolved in water may be tried.

For arsenic, large doses of sugar dissolved in milk, until the stomach is supposed to be cleared, then as above.

For verdigris, as for mercurial poisons.

For lead, give a strong dose of Epsom salts. If this be rejected, a ball with calomel, aloes and a quarter of a grain of opium. After this the body to be kept open with castor oil.

For vegetable poisons, a strong emetic should be given as quickly as possible, followed by a large teaspoonful of mustard, or any other strong, spicy stimulant, such as pepper, or the like, mixed with vinegar.

MANGE.

For common Mange, the following formula for ointment will be found useful:

No.

1. Powdered sulphur, 4 oz. Muriate of ammonia, powdered, ½ oz.
   Aloes, powdered, 1 dr. Venice turpentine, . . . ½ oz.
   Lard, 6 oz., mix.
2. Sulphate of zinc, 1 dr. Tobacco in powder, . . ½ oz.
   White hellebore in powder, . ½ oz. Sulphur in powder, . . 4 oz.
   Aloes in powder, 2 dr. Lard, ... 6 oz., mix.
3. Powdered charcoal, 2 oz. Powdered sulphur, . . . 4 oz.
   Potash, . . . 1 dr. Lard, ... 6 oz.
   Venice turpentine, ½ oz., mix.
4. Sulphuric acid, 1 dr. Lard, ... 6 oz.
   Tar . . . . . 2 oz. Powdered lime, ... 1 oz.
5. *Wash.*—Decoction of tobacco, 3 oz. Decoction of white hellebore, 3 oz. Oxymuriate of quicksilver, 5 grs.

With all these applications a fine wire muzzle must be used to prevent the dog licking himself, as if he do so he will infallibly perish from the strong poisonous properties of the remedies. For red mange, to any of the formula, 1, 2, or 3, to 6 oz. of the ointments prescribed, add 1 oz. mild mercurial ointment. Use the wire muzzle as above.

In addition to these outer applications, give mild

doses of Epsom salts twice or thrice a-week; and occasionally, but for red mange *always*, the following formula:

Black sulphuret of quicksilver, Æthiop's mineral, 1 oz.
Supertartarate of potash, 1 oz. Nitrate of Potash, 2 drs.

Divide into sixteen, twenty, or twenty-four doses, according to the size of the dog, and give one morning and evening.

Keep the dog warm and dry, and feed on vegetable diet.

OPHTHALMIA.

Whether arising from cold, or external irritation, as scratches, thorn-wounds, or the like, may be treated successfully as follows:

Give gentle purgatives, feed low; if much inflammation, bleed. Apply the following wash several times a day, *after* fomenting, with an infusion of poppy-heads, or a weak infusion of opium in hot water.

Superacetate of lead, ½ dr. Rose-water, 6 oz.

When the inflammation is disappearing,

Sulphate of zinc, 1 scrup. Weak infusion of elm bark, 6 oz.
Brandy, 1 teaspoonful.

SORE FEET.

"When dogs' feet become sore by travelling it is common to wash them with brine, but this is not altogether a good practice. It is better to bathe them with greasy pot-liquor, milk or butter-milk, and afterwards to defend them from stones or dirt by wrapping them up."—*Blaine.*

My practice is *always* after shooting, to bathe a dog's feet *when* unwounded, with brine, which tends greatly to indurate and prevent them from becoming sore. If actually sore, I follow Mr. Blaine's course of treatment.

The habit of worming dogs is, I believe, now entirely out of date, as it is entirely useless as a preventive for hydrophobia, of which it was ignorantly supposed to prevent the possible occurrence. It is an absurd, useless and cruel practice.

I do not approve of the practice of either cropping,

rounding or tailing dogs; but if in compliance with an absurd fashion it must be done, and the animal disfigured, and often seriously injured—for deafness is a common consequence of cropping—the operation should be performed with a pair of sharp, strong scissors, and a ligature should be applied to the tail, in order to prevent excessive bleeding.

For the bites of poisonous reptiles, the best remedy is to rub the part bitten freely with volatile alkali, and to give to a *large* dog forty drops of spirits of hartshorn hourly in a teaspoonful of sweet oil.

When these cannot be obtained, rub the wound freely with olive oil, close to a wood fire, and give large doses of olive oil internally.

A poultice of the leaves of the broad-leaved plantain, bruised and mixed with common salt, I have found useful.

For sprains, bruises or thorn-wounds, hot fomentations of infusion of camomile flowers, or vinegar and water, as hot as can be endured, and warm poultices, are the best practice. In the case of thorn-wounds the laceration should be carefully searched that no portion of the thorn or splinter remain within it.

Large cuts or lacerations should be washed carefully with tepid water, the lips, if necessary, secured by a stitch or two, and the edges brought into contact with strips of adhesive plaster. It is a very false idea that the animal's tongue is the best dressing. Mr. Blaine observes on this point, "In some instances, I am certain, no application can be worse to a wounded dog than his own tongue. Whenever dogs are at all inclined to foulness, as a tendency to cuticular complaint is called, a sore so licked, is sure to become mangy, and to be aggravated by the licking."

I shall conclude this branch of my subject, as I commenced it, by recommending it strongly to every sportsman to have always at hand, as better than the best farriers, Blaine's Canine Pathology, and Youatt on the Dog: these, if he have ordinary intelligence, and ordi-

nary care, aided by a small medicine-chest, and a lancet —without which latter article no sportsman should ever take the field—will enable him to guard against the occurrence of most disorders in his kennel, and to conquer such as do occur, unless extraordinarily obstinate or malignant.

FIELD MANAGEMENT OF DOGS.

It is not, of course, presumed that the sportsman is necessarily to become a dog-breaker, much less that a tyro at field sports can be made a dog-breaker by reading a few pages more or less of written or printed instructions.

On the contrary, it is notorious that scarce any science is more difficult of attainment, or requires more combinations of personal qualifications than that of subduing and breaking animals. Extreme patience, great steadiness of temper, sagacity, intelligence, quickness of comprehension, firmness and even severity, must be united to long experience, to personal strength, physical courage, the power of enduring fatigue, unwearied industry, indomitable energy, and constant perseverance. Even of professional dog-breakers, not one in fifty is really up to his business; how then shall the amateur hope to jump at the conclusion in a minute?

Again, it is presumed that every person who is not a most perfect and accomplished sportsman, will buy a well-broke dog; or if he breeds, which is troublesome, and very likely to lead to disappointment, will have his Pointer or Setter trained by a professional workman.

It is true that a dog will certainly work better for the person who has first trained, and continually practised him, without ever changing his master; but so few men have the ability, and so few of those who have, are willing to give the time or labour necessary to indoctrinate a dog thoroughly, that it is hardly ever done by the gentleman sportsman, and indeed I should hardly recommend the attempt.

For a novice to attempt it, would be an act of stark madness. Still, however, it is necessary to know something of the theory of the science, otherwise it will be impossible to keep the animal, after being thoroughly trained, perfect in his practice; and again, it is well that the rules should be laid down distinctly, as very many professed breakers fail in their art from want not of perseverance, but of knowledge.

First of all, it must be remembered, that although to *point* was once a taught quality, it is now, in the pure high-bred Pointer and Setter an inherited, if not natural, instinct, and in the very purest caste of Pointers to *back* the point of their fellows, is also now hereditary. I have seen half a dozen Pointer puppies, not above six weeks old, crawling about the yard, pointing the pigeons and fowls, and backing one another, as steadily as old dogs in the field; and I hardly consider any dog, Pointer or Setter, as worth the trouble and expense of breaking, unless he points the first game bird he ever scents, even if he have not seen it.

The first step I therefore would take with a young dog, is to find out whether he has got a nose or not, and whether he is worth breaking; this I should do by taking a walk with him, and without a gun, where game abounded, and observing his actions and movements. If he have a good nose, and be highly bred, he will undoubtedly point on the first occasion of his crossing the scent of Quail, Grouse, Snipe, or Woodcock.

This point once established, the sooner he is carried home the better, and he is, on no account whatever, to be taken out again, or to see game again, until he is perfectly *house-broke*.

It is to the vicious plan of attempting to break dogs *in the field*, and in *the face of game*, that the number of wild, worthless, irreclaimable brutes is to be attributed.

The first step in breaking, is to teach the dog to "down," or "charge," wherever he is. He is taught to do this in the commencement, by means of a cord

fastened to his collar, and by gentle force and gentle punishment—at first at the word "down," or "charge," then by the raised hand accompanying the word; then by the raised hand alone.

This done, the cord must be removed, and he must be accustomed to "charge" at any distance from his master, and to lie steadily at charge, even although the master walks away from him with his back turned, and goes *out of sight of him*, unless he is desired to "hold up."

Lastly, he must be taught to consider the sound of the gun as equivalent to the raised hand, or the word "charge," and to obey any one of these signals when at the top of his speed.

Next, he must learn to answer the sound of the whistle, according to his master's teaching. The best signal is to turn and look at one sharp whistle, to *come in* at a prolonged blast. On turning his head, he is to follow the wafture of his master's hand to the right or left, and he is then to be instructed in breaking and quartering his ground regularly and evenly at the whistle, and the waive of the hand. Gradually he will come to understand the object of this teaching, and will quarter his ground alone.

This is a very important part of breaking, for no dog can be regarded as at all perfect, which only runs about its ground irregularly, without settled and orderly method, leaving great spaces uncrossed, and, perhaps, crossing other spaces several times over, wasting time thus, and failing to find much of its game; and yet it is not unfair to say, that of fifty dogs turned out as broken dogs by American breakers, not one has ever been instructed in the rudiments of this branch.

As soon as the pup drops to shot perfectly and steadily, and turns quickly to the whistle and call, having learned the necessity of *prompt and implicit obedience*, and the certainty of punishment in case of wilfulness, he may be taken out *alone*, without a gun, to find game. He must thus be accustomed to the word "Toho,"

as the signal of pointing, and that so thoroughly, that he shall obey the word "Toho," by pointing steadily when there is no game.

This done, several young dogs may be taken out *to exercise* together, and taught all to drop at once at the word "charge," the raised hand, or the shot; and all to stop or point simultaneously at the word "Toho," and at the sight thereafter, by each of the other's point.

All that is requisite in order to enforce these lessons, is steadiness.

The dogs must now be broke to fetch, and this is the hardest lesson of all; but no dog is perfect until he has learned it; for it is, in the first place, almost indispensable to making large bags in our wild wooded country, that dogs should fetch; and, secondly, it tends, if properly done, to render dogs deliberate and steady beyond all means in the world.

This, like the "down-charge," must, in the first instance, be taught in the collar and cord, and under the whip.

Observe, above all things in dog breaking, that a dog is never to be taught anything by coaxing, but always by the fear of punishment. A dog which is taught by coaxing, if he turn sulky, can never be controlled, as he does not know what punishment means.

A dog is taught to fetch by charging him, putting a ball or some *soft* substance into his mouth, closing his jaws on it, and replacing it, with gentle punishment, so often as he rejects it. This learned, he is forced by a repetition of the same processes, to rise and carry it about—then to fetch it when dropped, or thrown, till he is perfect.

Thereafter, he is made to down-charge first of all, when it is thrown, and not to attempt to fetch it, unless desired to "fetch," to drop several times to the "charge," before reaching the ball, after being sent for it, and lastly, to "charge" with his nose almost touching it. The final lesson of all is to deliver it quietly and willingly.

All this is to be enforced by the whip, rigorously, but temperately,—invariably, but never angrily,—with praise and caresses when he does well, and reproaches accompanying chastisement.

All these things he must be accustomed to do, until they have become absolutely his second nature, without his conceiving to what the teaching is applicable. This accomplished, when he never fails of obeying these signals and orders—when he becomes thoroughly aware that the least infringement of commands is followed by sure infliction of the lash—when he performs the whole routine of his little instructions, with the mechanical steadiness and coolness of a circus horse, take him out with the gun *alone*, and you will have no difficulty in controlling him,—he will rapidly come to apply his theory to practice—he will become passionately and devotedly fond of his sport,—his enthusiasm and ardour will increase the more, the more game is killed over him, while he will keep cool and obedient with little or no trouble.

He will not associate his ideas of punishment with the game or the gun, but with the infringement of the old teachings, and he will in a very short time become —what he never would be if taken out half broke, and allowed to contract bad habits, and to commit faults before he knows that they are faults—perfect. In this case the prevention comes before the commission of the fault, and the error itself is checked by a word before it is committed. In another word, the dog is not flogged for flushing his bird, or failing to back his comrade, but for refusing obedience to the word "toho"—not flogged for running in to bite a bird, but for disobeying the word "charge," the raised hand, or the sound of the shot.

If you wait till the temptation of eagerness and impetuosity in the field, is added to the natural difficulty of teaching, you will toil in vain. No dog can ever be made a *perfect* dog, who is not *perfectly* broke to "down-

charge," to "toho," to "fetch," and to obey *implicitly*, before a bird is killed over him.

This is the shibboleth, the grand arcanum of dog-breaking.

All the rest is mere practice and experience, which make perfect both the teacher and the taught.

Young dogs should always be hunted alone, or with other young dogs. But it is far better to hunt them quite alone, until such time as they come to understand their work thoroughly, and to feel confidence in themselves.

If hunted with knowing old dogs, puppies will soon come to depend on them entirely; will follow them, and watch their every motion, and never learning to beat their own ground, or find their own game, will content themselves with backing, instead of pointing, and will become timid, and ultimately useless.

Hunting puppies, on the contrary, together, will tend to make them all wild and rash, and to induce their mutually learning the faults of all.

On the whole, therefore, it is the better way to hunt young dogs singly during their first season, killing as many birds over them as possible; and, at the beginning of the second year, remembering that brace-hunting is the proper sphere of Pointers, or Setters, to introduce them to mates of their own ages, and thenceforth always to hunt, and, as much as you can, *feed* the same braces together. One brace of dogs, accustomed so to live and beat together, will do better work a-field, than three dogs of equal qualities, all working each "on his own hook."

So much for the rules of dog-breaking!

With regard to practice and management in the field, there is little or nothing to be said, beyond what I have already laid down, *passim*, under the heads of the various kinds of Upland shooting.

Dogs should not be harassed by too many, and never by *contrary* orders. No fault should ever be

passed over in silence, and very few will be committed. Punishment should be inflicted as rarely as possible, but when it is inflicted, it should be done thoroughly and severely.

Never holloa at a dog—never run after a dog, but either make him come back to you, or bide your time till he becomes tired and returns of his own accord, then punish for the double event.

When you enter a field, or covert, which you propose to beat, bid your dogs "h[illegible]p," and waive them right and left. Turn them by a whistle, and waive them hither or thither. When they strike a bevy of Quail, or other game, never hurry after them, but make them go slow by the word "steady." If they are rash, be you deliberate. If you hurry on, you best encourage their hurrying. Never mind if they flush *one* bevy, and you lose one shot. Be steady, and punish, so that they will not do so again.

When they point, flush your own bird, even if you get a worse shot at it than you would do by hieing on your dog. To do so will make him heedless and headstrong.

If you kill, stand still, cry "down-charge," and load your gun. If the dogs run in, don't run after them, it will only make them run the faster. Stand still, and cry "down," till you have done loading. Then go on deliberately, never heed the dead bird, which is probably half eaten by this time, but drag the offender back to the place whence he started, crying "down-charge," and lashing him all the way,—then hold him down, and flog him most severely. Make him lie still, without stirring, till you have brought the bird, and laid it close under his nose. Then make him pick it up, and give it you,—he will not run in many times, if so dealt withal.

Break your dogs thus, or have them thus broken, and when they are broken, handle them thus in the kennel, and in the field, and my word on it, they will be, and continue good ones.

BAY SHOOTING.

THE Atlantic coasts of the United States, with the deep bays and indentures of their shores, the estuaries of their noble rivers, the wide extent of salt marshes and meadows, interspersed with shallow land-locked washes and lagoons, abound, perhaps, more than any other region of the world, in which man and cultivation exist, with all the various tribes of water-fowl and waders, which can minister to the amusement of the sportsman. From the magnificent and stately Swan, down to the minute Sandpiper, every species of aquatic birds abound in their appropriate latitude, and in their peculiar season.

From Boston Bay to the Balize, some portion of the coast will, at all times of the year, be found to swarm with all the varieties of Curlew, Sandpiper, Plover, Godwit, or Phalarope, sometimes as passing visitors, sometimes as denizens and owners of the soil, on which they build their nests, and raise their amphibious young.

The greater portion of these winter on the shores of the Southern States, and many in countries yet to the south of these; and during the spring and summer, pass eastward and northward along the coasts of the Atlantic, to their breeding places in the extreme North, on the cold shores of Labrador, returning thence in autumn to the milder climates of Florida, and the warm waters of the Gulf of Mexico.

The great tract of shallow, land-locked water, which lies along almost the whole southern side of Long Island, improperly called the Great South Bay, for it is rather a lagoon than a bay, "occupying a distance of seventy miles uninterrupted inland navigation," bounded

on the south by the shingle beach and sand hills, which divide it from the open Atlantic; and on the north by the vast range of salt meadows, which form the margin of the island, is the resort of countless flocks of aquatic fowl of every description, and is especially the paradise of gunners. The marshy shores of South-western Jersey, the broad embouchure of the Delaware, the many beautiful streams which flow together into the Bay of Chesapeake, the inlets of Albemarle and Pamlico Sounds, the tepid waters of Florida, the great Bay of Mobile, and the sea-lakes Borgne and Pontchartrain, at the mouths of the Mississippi, all abound in their season with these aquatic myriads; but in none, perchance, are they more systematically and regularly pursued, than in the waters of Long Island. The mode of pursuing and taking them, is nearly the same everywhere, as they, like all species of wild fowl, must be taken by stratagem, and from ambush, not by open pursuit.

The tribes and varieties of these birds are so numerous, that to attempt a detailed account or description of them all, would far exceed the possible limits of such a work as this, and would cause it to assume the character, to which it does not aspire, of a regular ornithology, rather than a guide and companion of the sportsman.

Of the Rallidæ, or Rail family, there are nine varieties; of the Charadriadæ, or Plover family, there are also nine; of the Scolopacidæ, or Snipe family, including Sandpipers, Tatlers, Godwits, Snipe, Avoset, Stilt, and Curlew, there are no less than twenty-eight; and of the family of Pinnatipedes, or Lobe-footed Swimming Birds, there are three varieties; besides six Geese, two Swans, sixteen Sea-ducks, and four Divers, all of which come, to a certain degree, within the definition of game, as being objects of pursuit to the sportsman, both for the pleasure of the chase, and for the purposes of the table; and in addition to these, there are seven members of the family of Gruidæ, including Cranes, Herons, Bitterns, and Ibises,

which are generally shot by the sportsman, when he finds an opportunity, although they cannot be in any sort regarded as game, and are not, in general, suitable for food, their flesh being, for the most part, course, dark, and fishy. A certain number of these birds, however, must be dealt with and regarded as *game;* I begin, therefore, this department of my work, with what are commonly called, although only one of them correctly,

BAY SNIPE.

No. 1. Red-Breasted Sandpiper.—*Tringa Islandica; Linn.*—Vulgo, *the Robin Snipe.*

Ash-coloured Sandpiper, Tringa cinerea, Wils. Winter.—Red-breasted Sandpiper, Tringa rufa, Wils. Spring.—Tringa islandica, Bonap. Syn. Tringa cinerea, Sw. and Rich.—Knot or Ash-coloured Sandpiper, Nutt. Man, Knot or Ash-coloured Sandpiper, Tringa islandica, Aud.

"*Specific Character.*—Bill straight, longer than the head; tarsi one inch and three-sixteenths long; rump and upper tail coverts white, barred with dark-brown; region of the vent and the lower tail coverts white, with dusky markings. In spring, the upper parts are ash-gray, variegated with black and pale yellowish red; lower parts, including the throat and fore-neck, brownish-orange. In autumn, the upper parts are ash-gray, margined with dull white: rump and upper tail coverts, barred with black and white; lower parts white; the sides of the body marked with dusky; a dull white line over the eye. Adult in spring—bill black; a broad band of reddish-brown commences at the base of the upper mandible, extends half-way to the eye, where it changes to reddish-brown; upper part of head and the hind neck dusky, the feathers margined with greyish-white; a few touches of pale reddish-brown on the latter; throat, fore-neck, breast, and abdomen, reddish-brown; vent white; lower tail coverts white, spotted with dusky; upper plumage blackish-brown; upper tail coverts barred with black and white; tail pale-brown, margined with white; primary coverts black,

tipped with white; secondary coverts grayish-brown, margined with white. Young, with the upper parts grayish-brown, the feathers with central dusky streaks, a narrow line of cinnamon colour toward their margins, which are dull white; the lower parts ash-gray. Length of adult, ten inches, wing six and three-quarters.

"This species is familiar to our gunners by the name of Robin Snipe. In the great South Bay, Long Island, where those immense salt marshes are separated by creeks and channels, a number of beautiful islands appear, differing in size and form, each having an appropriate name; they form quite an interesting feature in the geography of the island; there the Red-breasted Sandpiper, during its short stay in the spring, takes up its abode. Shortly after day-light, it commences its daily labour in search of food, visiting the shoal ponds that abound with small shell-fish, on which they chiefly subsist. The wily gunner, eager to profit by the ready sale of this superior bird, makes early preparation to receive them; lying concealed near their favourite haunts, by imitating their peculiar note, he thins their ranks by bringing them within reach of his well-directed gun.

"At the period for migrating, this species assemble in flocks, and steer for the North, where it passes the season of reproduction; about the middle of August it returns with its young, when the change of plumage is quite visible—the abdomen at this time is white, the breast pale rufous. Late in September it moves southward; at this period the lower plumage is white, spotted on the neck, breast and flanks dusky; the upper plumage ash-gray; in this dress it is the 'White Robin Snipe' of our gunners.

"In the autumn it generally frequents the inner beach, and is sometimes observed along the surf, collecting minute marine productions that are cast on the shore by the waves. In the fall it is more timid than it is in the spring, frequently passing within hearing of the fowler's treacherous whistle, without approaching

his decoy. In the spring its lower plumage resembles the Red-breasted Thrush, or Robin—*Turdus migratorius*—from which it receives its name. Common to both continents, and is said to lay four eggs."—*Giraud's Birds of Long Island.*

No. 2. RED-BACKED SANDPIPER.—*Tringa Alpina; Linn.*—Vulgo, *Black-breasted Plover.*

Tringa alpina, Red-backed Sandpiper, Wils. Tringa alpina, Bonap. Syn. Tringa alpina, American Dunlin, Sw. and Rich. Dunlin or Oxbird, Nutt. Man. Red-backed Sandpiper, Tringa alpina, Aud.

"*Specific Character.*—Bill about one-third longer than the head, bent toward the end, length of tarsi one inch. Adult with the bill black, one-third longer than the head, slightly bent toward the end, and rather shorter than that of *T. Subarquata;* upper part of the head, back and scapulars chesnut-red, the centre of each feather black, which colour occupies a large portion of the scapulars; wing coverts and quills grayish-brown; the bases and tips of the secondaries, and part of the outer webs of the middle primaries, white; forehead, sides of the head, and hind-neck, pale reddish-gray, streaked with dusky; fore-neck and upper part of breast, grayish-white, streaked with dusky; on the lower part of the breast a large black patch; abdomen white, lower tail coverts white, marked with dusky; tail light brownish-gray, streaked—the central feathers darker.

"Winter dress, upper parts brownish-gray; throat grayish-white; fore part and sides of neck, sides of the head, and sides of the body, pale brownish-gray, faintly streaked with darker; rest of the lower parts white. Length seven inches and a half; wing four and an eighth.

"This bird, more familiar to our gunners by the name of 'Black-breast,' arrives on the shores of Long Island in the month of April. It soon passes on to the north, and is said to breed in the Arctic regions. In the month of September it returns, and at that season is quite abundant, though not so plentiful with us as it

is on the seacoast of New-Jersey. It associates in flocks, and frequents the shores, sand-bars and muddy flats, feeding on worms and minute shell-fish, which abound in such places. In the month of October it is usually very fat, and is considered excellent eating. In autumn, the plumage is so entirely different from that of spring, that by gunners generally it is considered a distinct species, and is called by them at that season 'Winter Snipe.' It then resembles the autumnal dress of the Curlew Sandpiper, the form and length of their bills being not unlike. By persons not accustomed to comparing birds, the two species might easily be confounded. The neck of the latter is longer and more slender—the head smaller and more rounded—the wings and legs longer—and with its general superiority in size, is sufficient to determine the species.

"The Red-backed Sandpiper is found during autumn on the sandy and muddy shores along the whole extent of the coast of the United States. It is a restless, active bird, and gleans its food with great nimbleness, and seems to be fond of continually changing its position. Soon after alighting, they collect together, and make a short excursion over the water, again alighting a short distance from where they had previously taken wing. During their aërial excursions, when whirling about, they crowd so close together, that many are killed at a single shot. On one of these occasions, Mr. Brasher informs me that he killed fifty-two, by discharging both barrels into a flock. This number is greater than I ever before heard of; but from ten to fifteen is not unusual.

"To the curious who are fond of speculating on anomalies, I will mention a coincidence connected with an individual of this species, that I am at a loss to account for. In the month of November, 1840, a gentleman shot a Red-backed Sandpiper. Not recognizing it in its winter dress, and supposing it to be something unusual, he had the politeness to forward it to my address. It being a very common species, and

having in my cabinet several duplicates in both spring and winter plumage, I did not think it worth preserving. I threw it carelessly on my table, where it remained for two or three weeks without receiving further notice. At the expiration of that time, my attention was again called to it, when I was somewhat surprised to find it in as good condition as when I had first received it. It having been shot about three weeks, and during the time that it was in my possession kept in a room in which almost every day there was a fire, I decided, as a matter of curiosity, to keep it in order to ascertain how long it would remain before decomposition would take place. On several subsequent examinations, I found no symptoms of decay, but discovered that the breast and other fleshy parts began to shrink. Now at the expiration of two years, it is perfectly dry and hard—the eyes sunk in, or entirely dried up, a large portion of the breast-bone bare, the abdomen much contracted, and at the same time all the feathers are complete; in other words, it is a self-preserved mummy. The entrails were not removed, neither was it injected, nor artificial means of any kind resorted to. Had this occurred with an upland bird, especially when in poor condition, I should not have thought it strange: but the shore birds, from their being so excessively oily, are proverbial for spoiling soon after shooting."

No. 3. Pectoral Sandpiper.—*Tringa Pectoralis; Bonap.*—Vulgo, *Meadow Snipe.*

Tringa pectoralis, Bonap. Syn. Pectoral Sandpiper, Tringa pectoralis, Nutt. Man. Pectoral Sandpiper, Tringa pectoralis, Aud. Orn. Biog.

"*Specific Character.*—Bill straight, base orange-green; length of tarsi one inch and one-sixteenth; upper parts brownish black edged with reddish brown; throat white; fore part of neck and upper part of the breast light brownish gray, streaked with dusky; rest of lower parts including the lower tail coverts white. Adult with the bill straight; top of the head dark brown, intermixed with black; sides of the head, neck

and a large portion of the breast, grayish brown streaked with dusky; chin white; a streak of dark brown before the eye, continuing to the nostril—directly above a faint line of white: back dark brown; feathers margined with white; primary quills dark brown—shaft of the first white; outer secondaries slightly edged with white; tail feathers brown, margined with brownish white—two middle feathers darker, longest and more pointed; lower part of the breast, abdomen, and sides of the body, and under tail coverts white; feet dull yellow; tibia bare, about half the length. Female, the general plumage lighter. Length nine inches and a half; wing five and a quarter.

"During some seasons, this species is quite plentiful on the shores of Long Island. It is generally overlooked by the gunners, and I find that most of our sportsmen are not aware of the claims it has to their attention.

"In the spring I have never met with it in large numbers, and from this circumstance I am inclined to the opinion that it passes on to its breeding grounds with but little delay. In the latter part of August it returns, and increased numbers appear on the necks of land in the immediate vicinity of tide water, and are also found in the islands in the bay. Although large numbers are sometimes seen occupying the same feeding grounds, still there appears to be a great want of sociability among them—each one seemingly so intent on providing for its own comfort, as to be entirely regardless of those of its companions.

"When feeding, the flock scatter over the bare places that occur on the moist grounds which they inhabit; and when thus employed, are silent. They are by no means wary, and regard the approach of the gunner with indifference. On one occasion, I fell in with a large number, the nearest one of which I walked up to within close shooting distance, seemingly entirely unnoticed. Notwithstanding there were upwards of forty in view, they were so widely distributed that I

could not get two in a range, nor did I during my operations, which were continued until I had procured twenty-one of the number. At the report of my gun, those that were not singled out, flew on a short distance, and resumed their occupation as before; and during the repeated firing, I did not observe an individual pass beyond the meadows which was comprised in a few acres. When surprised, it springs up, presenting a fair mark; and, if allowed to proceed, flies steadily at a short distance above the surface of the ground.

"It feeds on various species of insects and minute shell-fish, which lie near the surface, and is at times seen boring with its bill to a greater depth. On dissection I have found in its stomach particles of plants. Its note, which is a low whistle, is not often repeated, except when apprehensive of danger.

"To some of the residents of the island, it is known by the name of 'Meadow Snipe,' and I have heard the bay-men term it 'Short-neck.' In autumn it is quite common at Egg Harbour, and sometimes remains there till the early part of November. Toward the latter part of the season it is in excellent flesh. On the sea-coast of New Jersey it is called the 'Fat Bird.'

"Mr. Baird has informed me that it occurs in Pennsylvania, in which section it has received the appellation of 'Jack Snipe.' I have occasionally seen it in our locality during the month of July; but in such instances it has been alone, and I have always at that period looked upon them as stragglers, who, for want of inclination or ability to perform the fatiguing journey, have loitered behind the migratory band.

"On Long Island I do not think it breeds, and I am not aware that their nests have been found on the sea-coast of the United States. In autumn its flesh is very juicy and well flavoured; when procured late in the season, I think it superior to any of our shore birds; and I have partaken of it when I have thought it equal to any of our upland game.

"The Long-legged Sandpiper, the Curlew Sandpiper, and the Semi-palmated Sandpiper, I purposely omit as so rare that they must not be regarded by the sportsman as regular game. Wilson's Sandpiper and Schinz Sandpiper, I also omit on account of their rarity, small size, or worthlessness."

No. 4. YELLOW-SHANKS TATLER.—*Totanus Flavipes; Latham.* Vulgo, *the Yellow-Legs.*

Scolopax flavipes, Wils. Amer. Orn. Totanus flavipes, Bonap. Syn. Totanus flavipes, Yellow-shanks Tatler, Sw. and Rich. Yellow-shanks, Totanus flavipes, Aud. Orn. Biog.

"*Specific Character.*—Bill along the ridge one inch and three-eighths; length of tarsi one inch and seven-eighths; legs yellow. Adult with the bill black; throat white; upper part of the head, lores, cheeks, hind part and sides of the neck, deep brownish gray, streaked with grayish white; eye encircled with white, a band of the same colour from the bill to the eye; fore-neck, sides of the body, and upper part of the breast, grayish-white, streaked with grayish-brown; lower part of the breast and abdomen white; lower tail coverts white, the outer feathers barred with brown; scapulars and fore-part of the back, brown, the feathers barred and spotted with black and white; primaries blackish-brown, the shaft of the outer brownish-white, whiter towards the tip—the rest dark brown; secondaries margined with white; hind part of the back brownish-gray; tail barred with grayish-brown, white at the tip; legs, feet, and toes yellow; claws black. Length ten inches and three quarters; wing six. Young with the legs greenish—and by those who have not recognized it as the young of the year, I have heard the propriety of its name questioned.

"This common species, well known throughout the Union, arrives on the shores of New Jersey and Long Island in the early part of May. It associates in flocks, and frequents the muddy flats that are left bare at the recess of the tide. At high water, it resorts to the ponds on the beaches and meadows, where it gleans its

food, consisting of small shell-fish, worms, and insects. It is sometimes observed wading into the shallow water, in pursuit of small fishes.

"Gregarious in its habits, it is continually calling for others to unite with it, when its shrill cry informs the gunner of its approach. It obeys the decoys, answers the fowler's whistle, and if the sportsman is well concealed, sets its wings, and glides smoothly up to the decoys, gradually lowering its long legs—which, when flying, appear conspicuous beyond the tail feathers—and gently alights on the soft mud, or in the shallow water. It is more timid than the Red-breasted Snipe: but like that species, when invited by the gunner's whistle, it is not unusual for it to return, and receive the second fire.

"The voice of the Yellow-shanks is shrill, and consists of three or more notes. When wounded in the wing, it runs fast, and hides among the grass, frequently so well concealing itself as to avoid detection. Its manners and customs are well known to our gunners, and it is met with by sportsmen on many streams in the interior. Although its flesh is not superior, it meets with ready sale in the New York markets, and large numbers are shot to supply the demand.

"A noted gunner residing in the vicinity of Bellport, informed me that he killed one-hundred and six Yellow-shanks, by discharging both barrels of his gun into a flock while they were sitting along the beach. This is a higher number than I should have hit upon, had I been asked to venture an opinion on the result of a very unusually successful shot. Still, it is entitled to credit. Wilson speaks of eighty-five Red-breasted Snipe having been shot at one discharge of a musket. Mr. Audubon mentions that he was present when one hundred and twenty-seven were killed by discharging three barrels. Mr. Brasher, during the month of May of last year, at Egg Harbour, killed thirty-three Red-breasted Snipe, by discharging both barrels into a flock as they were passing by him. This number, although

small in comparison with those mentioned above, is large, and exceeds any exploit of my own, either with the present or former species—of both of which I have killed a goodly number, but do not deem it important to tax my memory with the number shot on any one occasion, to further illustrate the gregarious habits of this familiar bird.

"In the Fauna Boreali Americana, it is stated that the Yellow-shanks is a very common bird in the fur countries, and is seen either solitary or in pairs, on the banks of every river, lake, and marsh, up to the northern extremity of the continent.

"Mr. Audubon found a few on the coast of Labrador, but did not discover their nests—and adds that he has been informed that they breed in considerable numbers about Pictou. In the latter part of August, the Yellow-shanks commences moving southward, and in September they have usually all retired from the shores of Long Island."

No. 5. Tell-Tale Tatler.—*Totanus Vociferus; Wilson.*—Vulgo, *the Greater Yellow-Legs.*

Tell-tale Godwit or Snipe, Scolopax vociferus, Wils. Amer. Orn. Totanus melanoleucus, Bonap. Syn. Totanus vociferus, Tell-tale, Sw. and Rich. Tell-tale or Greater Yellow-shanks, Nut. Man. Tell-tale Godwit, Totanus melanoleucus, Aud. Orn. Biog.

"*Specific Character.*—Bill along the ridge two and one-fourth inches; tarsi two and one-half; legs yellow. Adult with the bill black, at the base bluish; upper part of the head, loral space, cheeks, and neck, streaked with brownish-black and white; throat white; a white line from the bill to the eye; a white ring round the eye; breast and abdomen white, spotted and barred with brownish-black; sides and tail coverts the same; lower surface of the primaries light-gray—upper brownish black, the inner spotted white; wing coverts and back brown, spotted with white, and dusky; scapulars the same tail; brown, barred with white.

"Winter plumage, the upper parts lighter—large portion of the breast and abdomen white; sides of the

body barred with dusky. Length fourteen inches, wing seven and a quarter.

"This species—with us not as numerous as the former—is known to the gunners by the name of Greater Yellow-shanks. It arrives on Long Island about two weeks earlier than the preceding, like which, its visit in the spring is of short duration. It has an attachment for the muddy shores of creeks and ponds—where it collects its food, and like many other species of shore birds, seems to have a fondness for the spawn of the king-crab or 'horse-foot.' It goes to the north and returns in the latter part of August, and remains until cold weather. On the meadows, in the vicinity of Oyster Pond, I have shot them late in November. In autumn they get in fine condition, and their flesh is at that season well flavoured. They do not usually associate in large flocks, generally roving about in parties of from five to twelve. Its voice is much stronger than that of the former, and consists of fewer notes, which by imitating, it obeys. It is more suspicious than the Lesser Yellow-shanks, though if the gunner lies close, it approaches the decoys without much hesitation.

"It walks over its feeding grounds with a graceful carriage, and collects its food in an elegant and easy manner. It is capable of rapid flight, and at times mounts high in the air, from which elevation its loud, clear, and familiar notes are often heard.

"Its habits are similar to the preceding, to which it bears a great resemblance in markings. On the coast of New Jersey it is common, and I have been informed that a few breed there. On Long Island I can find no trace of its having been found breeding, and I have no recollection of meeting with it there during the month of June, or early part of July; in the latter part of the last-named month I have met with it, but that period is unusually early, as it generally returns to us from the North, from two to three weeks later than the Lesser Yellow-shanks."

No. 6. Semipalmated Tatler.—*Totanus Semipalmatus; Lath.*—Vulgo, *the Willet.*

Scolopax semipalmata, Wils. Totanus semipalmatus, Semipalmated Tatler, Sw. and Rich. Semipalmated Snipe or Willet, Nutt. Semipalmated Snipe or Willet, Aud.

"*Specific Character.*—Secondaries and basal part of the primaries white; toes connected at base by broad membranes. Adult with the head and neck brown, intermixed with grayish-white; breast and sides of the body spotted and waved with brown on white ground; abdomen white; tail coverts white, barred with brown; tail grayish-brown, barred with darker brown—the outer two feathers lighter; rump brown; fore part of the back and wing coverts brown, largely spotted with dull-white; primaries blackish-brown, broadly banded with white; secondaries white. Length fifteen inches and a half, wing eight.

"This handsome species is well known to all our bay-men by the name of 'Willet,' by which appellation it is equally familiar to all sportsmen who fancy bay shooting.

"It passes the winter in the Southern States, and at the approach of spring commences migrating northward. It arrives on the shores of Long Island about the first of May, and is common on the seacoast of New Jersey at the same period. It is quite common to the island, though it cannot be said to be very abundant, nor is it so plentiful as it is at Egg Harbour, where it breeds. In the latter part of May its nest is found on the salt marshes among the grass, of which material, and a few rushes, it is formed. The eggs, four in number, are rather more than two inches in length, and about an inch and a half in breadth, and very thick at the largest end—the colour dark olive, blotched with blackish-brown, which markings are more numerous at the great end.

"During the season of incubation, if you approach its nest, it rises from the marsh and flies wildly around, filling the air with its shrill cries, which consist of three

notes, which are so violently repeated when defending its eggs or young, as to be audible half a mile distant. I have heard the gunners assert that on such occasions they have distinctly heard its vehement vociferations at a still greater distance.

"During the breeding season, if not disturbed, it passes that anxious interval in silence; but at all other times is noted for its noisy outcry.

"The flight of the Willet is swift, and performed with ease and grace. In general it inhabits the salt marshes—though, when making excursions about the bays and inlets, it at low water alights on the naked shoals; and is at times seen wading breast-deep in the water, pluming and dressing its feathers. It is exceedingly watchful, and when in exposed situations, however cautiously the gunner may approach, it seldom allows him to arrive within shooting distance.

"The address of the most experienced is seldom equal to its vigilance. The decoys offer a more favourable opportunity to procure it; but even in this manner it is by no means easily allured—notwithstanding the gunner is well hidden, and his ingeniously executed counterfeits rendered more deceptive by the perfect imitation he gives of its peculiar cry, which is promptly answered by the advancing Willet, whose keen eye timely detecting the deception, it provokes the fowler by quickly changing its course, and darting off like an arrow, usually ascending as it passes on.

"The Willet seldom associates with others of its tribe, though occasionally stragglers are seen on the muddy shores, feeding in company with the Gulls and Sanderlings.

"I am not aware that its nest has been observed on Long Island, though it is said to breed in several of the Middle States, and, according to Mr. Nuttall, it has been found in the vicinity of New Bedford. When flying, it is rendered very conspicuous by the prominent markings on the wings. It feeds chiefly on worms, aquatic insects, small crabs, and minute shell-fish.

When in good condition, its flesh is quite palatable, but not esteemed so great a delicacy as its eggs.

"Many of those birds that frequent the marshes are annoyed by insects, which intrude themselves under the feathers—particularly under the wings. The Willet seems to be a favourite bird for those tormentors to quarter upon—so much so, that I have frequently supposed that I had performed an act of kindness by shooting it.

No. 7. THE MARLIN.—*Genus Limosa; Briss. Godwit.*

"Bill very long, a little recurved from the middle—rather slender, thicker at the base; lower mandible shorter; head moderate; neck rather long; wings long, very acute; tail short, even; legs long; toes four, rather slender—hind toe small, middle toe longest, anterior toes connected at the base by webs, the outer web much larger.

Limosa Fedoa; Linn.—Great Marbled Godwit.

Great Marbled Godwit, Scolopax Fedoa, Wils. Limosa Fedoa, Bonap Syn. Limosa Fedoa, Great Marbled Godwit, Sw. and Rich. Great Marbled Godwit, Nutt Man. Great Marbled Godwit, Limosa Fedoa, Aud.

"*Specific Character.*—Bill at base yellow, toward the end blackish brown; upper parts spotted and barred with yellowish-grey and brownish-black; lower parts pale reddish-brown; tail darker, barred with black. Adult male with the bill at the base yellowish-brown, toward the end black; head and neck grayish-brown, tinged with pale-reddish, streaked with dusky—darker on the upper part of the head, and hind neck; throat whitish; lower parts pale reddish-brown; under tail coverts barred with brown; tail reddish-brown, barred with dusky; upper tail coverts the same; upper parts barred with brownish-black and pale reddish-brown, spotted with dusky; inner primaries tipped with yellowish white; scapulars and wing coverts barred with pale reddish-brown and grayish-white; shaft of the first primary white, dusky at the tip; inner shafts at the

base white, rest part light brown, excepting the tips, which are dusky. Length sixteen inches, wing nine and a half. Female larger, exceeding the male from three to four inches.

"The Great Marbled Godwit, or 'Marlin,' as our gunners term it, arrives on the shores of Long Island in the month of May; it cannot be said to be an abundant species—still we observe it visits us regularly every spring and autumn.

"It associates in flocks, and usually passes its time on the shoals and salt marshes; it is exceedingly watchful, and will not allow of near approach—but when any of their numbers are wounded, their associates hover round them, uttering loud and shrill cries. On such occasions they crowd together, offering an excellent opportunity for the gunner to secure them. I have shot it from various points in the South Bay, but have met with far better success on 'Pelican Bar,' which at low water is a favourable place for procuring many other species of marine birds. The flesh of the Marlin is tender and juicy, and is prized as game."

No. 8. THE HUDSONIAN GODWIT.—*Limosa Hudsonica; Latham.*—Vulgo, *the Ringtailed Marlin.*

Limosa Hudsonica, Hudsonian Godwit, Sw. and Rich. Hudsonian Godwit, Nutt Mann. Hudsonian Godwit, Limosa Hudsonica, Aud. Orn. Biog.

"*Specific Character.*—Bill blackish-brown. at base of lower mandible yellow; upper parts light-brown, marked with dull-brown, and a few small white spots; neck all round brownish-gray; lower parts white, largely marked with ferruginous; basal part of tail feathers, and a band crossing the rump, white. Adult with the bill slender, blackish-brown toward the tip, lighter at the base, particularly at the base of the lower mandible; a line of brownish-white from the bill to the eye; lower eyelid white; throat white, spotted with rust colour; head and neck brownish-gray; lower parts white, marked with large spots of ferruginous; under tail coverts

barred with brownish-black and ferruginous; tail brownish-black, with a white band at the base; a band over the rump; tips of primary coverts and bases of quills white; upper tail coverts brownish-black, their bases white; upper parts grayish-brown, scapulars marked with darker; feet bluish. Length fifteen inches and a half, wing eight and a half. Young with the lower parts brownish-gray, the ferruginous marks wanting.

"This bird with us is not as plentiful as the former, and is known to the gunners by the name of 'Ring-tailed Marlin,' so called from the white band crossing the tail feathers. A few are shot every season on the shores of Long Island, and are occasionally procured on the sea-coast of the Eastern States. Though not abundant in the middle districts, it is by no means a rare species. It is said to breed abundantly on the barren grounds near the Arctic seas, from whence it migrates through the interior, or along the coast of the Pacific. Its habits are nearly allied to the preceding, with which it sometimes associates."

No. 9. THE RED-BREASTED SNIPE.—*Scolopax Noveboracensis; Gmel.*—Vulgo, *the Dowitcher or Quail Snipe.*

Red-breasted Snipe, Scolopax Noveboracensis, Wils. Amer. Orn. Scolopax grisea, Bonap. Syn. Scolopax Noveboracensis, New York Godwit, Sw. and Rich. Brown or Red-breasted Snipe. Nutt. Mann. Red-breasted Snipe, Scolopax Noveboracensis, Aud. Orn. Biog.

"*Specific Character.*—Spring plumage, upper parts brownish-black, variegated with light brownish-red; lower parts dull orange-red, abdomen paler, spotted and barred with black; rump white; the tail feathers, and the upper and lower tail coverts alternately barred with white and black. In autumn the upper parts are brownish-gray, the lower parts grayish-white; the tail feathers, and the upper and lower tail coverts, the same as in spring. Adult with the bill toward the end black, lighter at the base; top of the head, back of the neck, scapulars, tertials, and fore part of the back, blackish-

brown, variegated with ferruginous; secondaries and wing coverts clove brown, the latter edged with white, the former tipped with the same; hind part of back white; the rump marked with roundish spots of blackish-brown; upper tail coverts dull white, barred with black; tail feathers crossed with numerous black bands, their tips white; loral band dusky, the space between which and the medial band on the fore part of the head, grayish white, tinged with ferruginous, and slightly touched with dusky; sides of the head spotted with dark brown; lower parts dull orange-red; the abdomen lighter; the neck, and fore part of breast, spotted with dusky; the sides of the body with numerous bars of the same colour; legs and feet dull yellowish-green. Young with the lower parts paler. Winter dress, the upper parts brownish-gray; neck ash-gray, streaked with dusky; lower parts grayish white, with dusky bars on the sides of the body. Length ten inches and a half, wing six.

"Our gunners, as if fearful that nothing would be left to connect the past with the present generation, cling to the old provincial names for birds, recognising this species by the singular and unmeaning name of 'Dowitcher.'

"At the close of April, the Red-breasted Snipe arrive on the coast of Long Island. Invited by a bountiful supply of food, at the reflux of the tide, it resorts to the mud-flats and shoals to partake of the rich supply of shell-fish and insects which Nature in her plenitude has provided for it. As the tide advances, it retires to the bog meadows, where it is seen probing the soft ground for worms. In the spring, it remains with us but a short time. Soon after recruiting, it obeys the call of unerring Nature, and steers for the North, where it passes the season of reproduction. About the middle of July, it returns with its young, and continues its visit during September; and if the season be open, lingers about its favourite feeding grounds until the last of the month.

"The whistling note of the Red-breasted, or 'Quail Snipe,' as it is termed is some sections of the island, is well known to the practical bay-gunner, and he so truly imitates it, that the call is obeyed at a great distance. Fond of associating in large flocks, this species is readily decoyed, and is noted for its unsuspicious and gentle manner.

"The Red-breasted Snipe is fond of frequenting the fresh ponds that occur on the lower parts of the beach, or meadow, during wet seasons, which situations are more favourable for procuring it, and attended with but little or no fatigue to the gunner, who lies concealed in the rank grass that grows on the salt meadows; or, when shooting over 'decoys' placed in ponds on the beach, he adopts concealment by making a bed of seaweed, or cut grass, at a convenient shooting distance. Thus concealed, he has an opportunity of observing what is passing around him. Should a wandering flock meet his eye, or the notes of a distant group fall upon his ear, he pipes his shrill whistle in accordance with their peculiar cry, which is answered by the leaders of the roving band, and echoed by the wily gunner, whose hopes now mount high, as he sees them check their course, wheel, and advance towards the decoys, whose well-trimmed, though silent forms, are made partners to the treachery.

"If suffered to alight, it is not unusual for it to spend several minutes in feeding among the decoys before it discovers the deception. Flying close together, and being proverbial for hovering over the silent group that leads them to destruction, the gunner thins their ranks by pouring into the body of the flock his deadly fire. Notwithstanding great havoc is made, it not unfrequently happens that some of those which escape, return and alight among the dead bodies of their companions, sharing—with the re-loading of the gunner's piece—their fate.

"In dry seasons, when the shallow ponds have disappeared, the scattered flock is observed along the

muddy flats, wading about in the shoal water, though seldom venturing beyond knee-deep, and seldom to so great depth. Even in this exposed situation, but little address is required to approach within shooting distance. I have often had opportunities of witnessing their dullness, in being apprised of danger, while they were feeding in company with various species of shore birds.

"Long before the gunner thinks of taking aim, the watchful Gull unfolds its wings, and passes still farther on from danger—quickly followed by the shy Willet. The less timid Yellow-shanks begins to feel insecure—it moves about with hurried steps—stoops to take one more morsel from the various delicacies that are profusely scattered round it—casts a glance at the approaching gunner, feeling that it has lingered too long for its safety, raises its wings, utters a suppressed and tremulous note, and leaves to finish its repast in some distant place of greater security. The host of small Sandpipers that are busily engaged in gleaning their fare, become apprehensive, neglect their occupation, take wing, and wheel off, leaving the Red-breasted Snipe alone with the gunner. The friendly 'Tern,' from its elevated and secure retreat, observes what is passing below, flies around in circles, uttering loud screams, urging the loiterers to depart, which kindly warning is unheeded, until the sportsman has arrived too near for the game to escape. As he levels his gun, the terrified Snipe becomes aroused, springs up, and the next instant lies like a clod upon the muddy shore.

"The Red-breasted Snipe is capable of rapid and protracted flight, at times performed to a great elevation. During dry seasons, when in search of its favourite pools, it flies high, and at such times is not so easily decoyed. At Egg Harbour, where it is abundant, it is called by the gunners 'Brown-back.'"

No. 10. Semipalmated Sandpiper—*Tringa Semipalmata; Wilson.*

Semipalmated Sandpiper, Tringa Semipalmata, Wils. Amer. Orn. Tringa Semipalmata, Bonap. Syn. Semipalmated Sandpiper, Nutt. Mann. Tringa Semipalmata, Aud. Orn. Biog.

"*Specific Character.*—Bill rather stout, broad toward the point; along the gap about one inch; length of tarsi seven-eighths of an inch; bill and legs black; toes half webbed. Adult with the bill slender, about the length of the head—dark green, nearly approaching to black; head, sides, and hind part of neck ash-gray, streaked with dusky; upper parts blackish-brown, the feathers edged with greyish-white; secondary coverts tipped with white; primary coverts brownish-black, as are the feathers on the rump; upper tail coverts the same; wing quills dusky, their shafts white; tail feathers ash-gray, the inner web of the middle pair much darker; over the eye a white line; lower parts white; legs black. Legs six inches and a half, wing four.

"This numerous species inhabits almost every part of the North American continent. In large flocks, they congregate on the beaches and sand-bars, and meadows, along the sea-coast, as well as on the shores of the interior lakes and streams. When feeding, this species scatter about in small parties; when surprised, it runs with a peculiarly rapid movement—collecting together in such bodies, that as many as twenty, and sometimes a larger number, are killed at a single discharge. When closely pursued, they move off in one mass, uttering a chirping note, which by imitating they shortly obey. They subsist chiefly on minute animal productions. On dissecting it I have found in its stomach small particles of sea-weed and sand. In the fall it gets very fat, and is considered a delicacy. It breeds at the far North; laying four or five white eggs, spotted and blotched with black."

"It arrives among us in spring, and remains with us, should the season be open, until quite late in autumn, when it departs for its winter quarters at the South."

No. 11. WILSON'S SANDPIPER—*Lobipes Wilsonii; Aud.*

"Though more abundant on the coast, it is not entirely confined to the sea-shore, but is likewise met with along the margins of the interior lakes and rivers. On the shores of Long Island it is very plentiful, and during the month of September is usually in excellent condition for the table. By gunners generally, it is neglected on account of its inferior size; though by many it is esteemed far superior, both in flavour and juiciness, to many of our larger shore birds. This species has a low lisping note; when alarmed, it moves off in a confused and irregular manner, uttering a shrill twitter. During the month of October, it migrates southward.

"Early in spring it appears on the shores of New Jersey and Long Island, and like the Semipalmated Sandpiper, numbers are seen during the summer months; but in either locality their nests are not found, and I am not aware that they breed within the limits of the Union. On the coast of Labrador, during the breeding season, both species were observed by Mr. Audubon."

No. 12. THE TURNSTONE—*Strepsilas Interpres.**—Vulgo, *Brant Bird—Horsefoot Snipe.*

Tringa Interpres, Wils. Amer. Orn. Strepsilas interpres, Bonap. Syn. Strepsilas interpres, Turnstone, Sw. and Rich. Turnstone or Sea Dotterel, Nutt. Mann. Turnstone, Strepsilas interpres, Aud. Orn. Biog.

"*Specific Character.*—Bill black; feet orange; the head and sides of the neck streaked and patched with black and white; fore part of the neck and upper portion of the sides of the breast black; lower parts, hind part of the back, and upper tail coverts white; rump dusky; rest of the upper parts reddish-brown, mottled with black; primaries dusky; a band across the wings,

* There has been much confusion in the classification and nomenclature of these birds. This and the following species were formerly classed as *Tringæ*, Sandpipers. I have therefore placed them next in order.

and the throat white. Young with the head and neck all round, fore part of the back, and sides of the breast, dusky-brown, streaked and margined with grayish-white; wing coverts and tertials broadly margined with dull reddish-brown. It can at all times be identified by its having the throat, lower parts, hind part of the back, and the upper tail coverts white, and the feathers on the rump dusky. Adult with the bill black; throat white; sides of the head mottled with black and white; crown streaked with black on white ground; on the hind neck a patch of white; a patch of black on the sides of the neck, of which colour are the fore-neck and the sides of the breast; lower parts white; tail blackish-brown, white at the base, of which colour are the lateral feathers, with a spot of black on the inner vanes near the end—the rest margined with reddish-brown and tipped with white; upper tail coverts white; hind part of the back white; the feathers on the rump black; fore part of the back mottled with black and reddish-brown; primaries dark-brown, inner webs white; secondaries broadly edged with white, forming a band on the wings; outer secondary coverts reddish-brown; inner black—outer scapulars white, with dusky spots; inner scapulars reddish-brown. In winter, the colours are duller. Length nine inches, wing five and three-quarters.

"In this vicinity, this species is better known to the gunners by the name of 'Brant Bird;' at Egg Harbour it is called 'Horse-foot Snipe,' from its feeding on the spawn of the king-crab, or 'horse-foot,' as the bay-men term it.

"Early in the month of April it arrives among us from the Southern States, where many pass the winter, and leaves for its breeding-place at the North in the latter part of May. It returns to the shores of New Jersey and Long Island about September, where it remains until late in autumn. This is not a numerous species. In its habits it is rather solitary, and is seen singly or in small parties at that season, wandering along the beach in search of insects and minute shell-

fish, which it procures by rolling over the small pebbles, from which it receives its name. In the fall it is generally in fine condition, and esteemed a delicacy. At Egg Harbour, the young of the species are called 'Beach Birds.'"

No. 13. The Sanderling—*Calidris Arenaria; Linnæus.*

Ruddy Plover, Charadrius rubidus, Wils. Amer. Orn. Summer. Sanderling Plover, Charadrius Calidris, Wils. Amer. Orn. Winter. Calidris arenaria, Sanderling Sw. and Rich. Sanderling Plover, Calidris arenaria, Nutt. Mann. Sanderling, Tringa arenaria, Aud. Orn. Biog.

"*Specific Character.*—Bill straight, black, along the gap one inch and one-eighth; length of tarsi one inch; hind toe wanting. Adult with bill straight, about as long as the head. Spring plumage, upper parts, with the throat, fore-neck and upper part of the breast rufous, intermixed with dusky and grayish-white, deeper red on the back; lower part of the breast, abdomen, and sides of the body pure white; tarsi and feet black; claws small, compressed; primaries, outer webs black, inner webs light brown; shafts brown at the base, tips black, rest pure white; secondaries light-brown, broadly margined with white. Winter dress, lower parts white; upper parts grayish-white, intermixed with black or dusky, darkest on the back. Length seven inches and three-quarters, wing four and seven-eighths.

"The Sanderling is said to be an inhabitant of both Europe and America. According to Latham, it is known to be an inhabitant of the remote coast of Australia, and is found on the shores of Lake Baikal in Siberia. To the coast of the United States it is one of the most common species, but with us I have never observed very large numbers during spring. About the middle of August it arrives in flocks on the shores of Long Island, and usually by the first of September is very abundant.

"Sometimes it is seen occupying, with other small species of Sandpipers, the shoals and mud-flats that occur in the shallow part of the bay, though generally

it seems to prefer the more immediate borders of the ocean. I have rarely, during the early part of autumn, visited the surf without meeting with large groups of Sanderlings collected along the beach, of which they have almost entire possession, as most of our shore birds find more productive feeding-grounds on the richer soil that is daily overflown by our inland bay.

"The Sanderling is of a sociable disposition, and searches for food in company, and is observed probing the sand for small bivalve shells and marine worms—to which article of diet, however, it is not altogether confined, as at times it is seen attending the retiring wave, which furnishes it with shrimps and the like.

"When feeding along the extreme verge of the ocean, it is pleasing to watch its active movements, when advancing or retreating with the influx or reflux of the sea. It is naturally very unwary, and regards man with less suspicion than most of our Tringas. When fired into, those which survive rise with a low whistling note, perform a few evolutions, and presently resume their occupation with as much confidence as previously exhibited. When wounded in the wing it takes to the water and swims well.

"Late in the season it gets very fat, and is excellent eating. The plumage of the Sanderling, like most other species, varies with the seasons. In spring, the fore part of the neck and upper portion of the breast is of a pale rufous colour; in autumn, the entire lower parts are pure white—exceeding in whiteness the bleached sand on which it dwells.

"Early writers have classed this bird under the genus *Charadrius*—Plover—to which the only claim it has, is, that the hind toe is wanting. Wilson, in his excellent work, speaks of the impropriety of this arrangement—though not wishing to disturb previous classification, has followed the same system as that adopted by his predecessors.

"In our more modern nomenclature, it appears in a new genus—*Calidris*—of Illiger—and up to the present

day is the only species of that genus discovered. In Mr. Audubon's work it is classed with the Tringas, and with the next we close our remarks on that genus."

No. 14. The Spotted Sandpiper—*Tringa Macularia*.—Vulgo, *Teeter; Tiltup*.

Tringa macularia, Wils. Amer. Orn. Totanus macularius, Bonap. Syn. Spotted Tattler or Peet-weet, Nutt. Mann. Spotted Sandpiper, Totanus macularius, Aud. Orn. Biog.

"*Specific Character.*—Bill along the gap about one inch; length of tarsi seven-eighths; upper parts brown, barred with dusky; lower parts white, spotted with blackish-brown. Adult with the bill longer than the head, slender, greenish-yellow at the base, dusky at the end; lower parts white, distinctly spotted with blackish-brown, faintly barred with dusky, and tipped with white; upper parts brown, barred with dusky; inner primaries tipped with white; secondaries more broadly tipped with the same; a band of white behind the eye —a white ring round the eye; outer toes connected by a membrane as far as the first joint. Length eight inches, wing three and seven-eighths. Young without the spots on the lower parts.

"This small and well-marked species is the first of this family that visits us in the spring. It appears on Long Island about the middle of April, and resides with us permanently until late in autumn, continuing its sojourn after most of the other species of Tringa have departed for their winter quarters.

"It is distributed throughout the United States, and occurs at Labrador, where, according to Mr. Audubon, as with us, it breeds, as well as along the coast of the Middle and Eastern States and the interior. It is a very common species, and from its habit of constantly raising and lowering its tail, it is familiar to persons residing in the country by the cognomen of 'Teeter' or 'Tiltup.'

"They do not associate in large flocks, and like the former, are rather solitary. They inhabit the moist

grounds in the vicinity of streams and ponds, and often resort to the ploughed fields to glean up the worms that lie exposed in the furrows. Early in the month of May, it commences preparing its nest, and retires to a neighbouring field for that purpose. The tenement—which is formed of dry grass or straw—is placed on the ground in a cluster of weeds or briars; sometimes it is found in the most exposed part of the pasture-ground, only partially hidden by the stinted vegetation by which it is surrounded. It is also found along the banks of small streams, and on the margins of ponds. The eggs, four in number, are of a pale yellowish cast, irregularly spotted with blackish brown. The young, soon after being hatched, runs among the grass, uttering a low, feeble, whispering note, which soon increases in cadence, so as to be undistinguishable from the full and clear voice of its parents—and at that early period it is seen giving that peculiar movement to the tail feathers for which this species is noted. The flight of the Spotted Tatler is very uneven, seldom being seen flying in a straight line to any distance, and usually performs its aërial gambols at a short distance above the surface. When wounded in the wing, it takes to the brook, and swims under water with considerable swiftness. In pairs, or small parties, it takes possession of the muddy margins of all our water-courses, from which it makes excursions to the adjoining fields, sometimes alighting on the fence-rails, &c.

"Being exclusive in its habits, it never courts the society of other species, though it is not unfrequent that we see the intrusive Semipalmated Sandpiper sharing with it the produce of its feeding grounds."

PLOVERS.

No. 1. Black-Bellied Plover—*Charadrius Helveticus; Linn.*—Vulgo, *Bull-Headed Plover.*

Black-bellied Plover, Charadrius helveticus, Wils. Amer. Orn. Charadrius helveticus, Bonap. Syn. Gray Lapwing, Vanellus melanogaster, Sw. and Rich. Black-bellied or Swiss Plover, Nutt. Man. Black-bellied Plover, Charadrius helveticus, Aud. Orn. Biog.

"*Specific Character.*—Bill stout, along the gap one inch and five-sixteenths, length of tarsi one inch and five-eighths. Adult male with the bill black, strong, shorter than the head; cheeks, loral space, throat, fore-neck, breast, with a large portion of the abdomen black; hind part of the abdomen and flanks white; forehead, with a broad band passing down the sides of the neck and breast, white; crown, occiput, and hind-neck grayish-white, spotted with dusky; upper parts blackish-brown, the feathers broadly tipped with white; eye encircled with white; tail and upper tail coverts white, barred with black—the former tipped with white; lower tail coverts white, the outer feather spotted with black; primaries and their coverts blackish-brown, the latter margined with white; primary shafts, about two-thirds from the base, white; tips blackish-brown; part of the inner webs of the outer primaries white; both webs of the inner primaries partially white; secondaries white at the base, margined with the same; feet black; toes connected by a membrane. Female smaller. Young with the upper plumage grayish-brown, the feathers spotted with white; throat, fore-neck, and upper part of the breast grayish-white, streaked with dusky; rest of the lower parts white. Length of adult male eleven inches and three-quarters, wing seven and a half.

"Early in the month of May the Black-bellied Plover arrives among us from its winter quarters. After spending a few days on the sand-bars and beaches, it leaves for the North. In the month of August it

returns with its young, which is so different in plumage that by many it is considered a distinct species, being called 'Bull or Beetle-headed Plover.' Though shy, it is frequently enticed within gunshot by imitating its plaintive note. In autumn, it is distributed along the sea-coast, subsisting on minute shell-fish and marine insects, on which it gets very fat. It remains with us until the latter part of September, when it moves southward, its migratory course extending to the southernmost extremity of the Union.

"Early in autumn this species is very abundant on Montauk. During the month of September, I met with it throughout my entire route across the hills; but found it more numerous on a large bald place, abounding with grubs, worms, and insects of various kinds, about four miles from the Light-house. On Montauk I also fell in with straggling parties of the Long-billed Curlew, and found the Yellow-shanks—*Totanus flavipes*—and Tell-tale—*T. vociferus*—quite abundant. These I found in great numbers in the valleys, along the margins of pools and ponds"

No. 2. AMERICAN GOLDEN PLOVER—*Charadrius Marmoratus.*—Vulgo, *Frost Bird—often confounded with the Upland or Bartramian Sandpiper.*

Golden Plover, Charadrius pluvialis, Wils. Amer. Orn. Charadrius pluvialis, Bonap. Syn. Charadrius pluvialis, Golden Plover, Sw. and Rich. American Golden Plover, Charadrius marmoratus, Aud. Orn. Biog.

"*Specific Character.*—Bill rather slender; along the gap one inch and an eighth; tarsi one and nine-sixteenths. Adult with the bill black, much slighter than *C. helveticus;* forehead, and a band over the eye, extending behind the eye, white; upper parts, including the crown, brownish-black, the feathers marked with spots of golden-yellow and dull-white; quills and coverts dark grayish-brown; secondaries paler—the inner margined with yellowish-white; tail feathers grayish-brown, barred with paler; the central with dull-yellow; shafts

of the wing quills white toward the end, which with their bases, are dark-brown; lower parts brownish-black, though in general we find it mottled with brown, dull-white, and black; lower tail coverts white, the lateral marked with black; feet bluish-gray. Late in autumn, the golden markings on the upper parts are not so distinct, and the lower parts are grayish-blue. Length ten inches and a half, wing seven and one-eighth.

"This bird is closely allied to the Golden Plover—*C. pluvialis*—of Europe. The latter is, however, superior in size, as well as having the feathers on the sides of the body under the wings—the axillars—white, whereas those feathers in our species are gray, and in the European species which I have had an opportunity of examining, the golden tints appear more numerous, and of a richer colour.

"The American Golden Plover arrives on Long Island in the latter part of April, and soon passes on to the northern regions, where it is said to breed. In the early part of September, on its return from its natal abode, it frequents the Hempstead Plains, Shinnecock Hills, and Montauk, where it feeds on a variety of insects abounding in such places. Grasshoppers seem to be its favourite fare, and when berries can be obtained, they also contribute to its support.

"I have occasionally shot it along the shores and about the ponds on the low wet meadows; but in general it prefers high dry lands, unencumbered with woods. The Hempstead Plains are well adapted to its habits, and during some seasons it is quite abundant on this miniature prairie. It is better known to our gunners by the name of 'Frost Bird,' so called from being more plentiful during the early frosts in autumn, at which season it is generally in fine condition, and exceedingly well flavoured. Commanding a high price in the New York markets, it is eagerly sought after by the gunners, and not requiring the fatigue and exposure attending the shooting of shore birds, it affords much amusement to sportsmen.

"On the ground, the Golden Plover displays a great deal of activity, and, when observed, often runs with considerable rapidity before taking wing. It is less timid than the Black-bellied Plover, and is easily decoyed by imitating its peculiar mellow note. I have often observed it, when passing in a different direction from that in which I was lying, check its course, wheel round, and present an easy mark.

"Its stay with us, as before mentioned, is very short, and as the season advances, it returns southward. It associates in flocks, and when migrating, moves off in a regular manner."

No. 3. Ring Plover—*Charadrius Semipalmatus.*

Ringed Plover, Tringa hiaticula, Wils. Amer. Orn. Charadrius Semipalmatus, Bonap. Syn. American Ring Plover, Charadrius semipalmatus, Sw. and Rich. Semipalmated Ringed Plover, Nutt. Mann. American Ringed Plover, Charadrius semipalmatus, Aud. Orn. Biog.

"*Specific Character.*—Bill shorter than the head; base orange colour; toward the point black; a broad band on the forehead white; margined below with a narrow black band, above with a broad band of the same colour; rest part of the head wood-brown; lateral toes connected by a membrane as far as the first joint; inner toes about half that distance. Adult male with the bill flesh-colour at base, anterior to the nostrils black; a line of black commences at the base of the upper mandible, passes back to the eye, curving downward on the sides of the neck; a band on the fore part of the head pure white; fore part of crown black; occiput wood-brown; chin, throat, and fore-neck passing round on the hind-neck, pure white; directly below, on the lower portion of the neck, a broad band of black; upper plumage wood-brown; primaries blackish-brown; shafts white—blackish-brown at their tips; secondaries slightly edged with white on the inner webs; outer webs, nearest to the shafts, an elongated spot of white; wing coverts wood-brown; secondary coverts broadly tipped with white; breast, abdomen, sides, and lower

tail coverts pure white; tail brown, lighter at the base; outer feathers white—the rest broadly tipped with white, excepting the middle pair, which are slightly tipped with the same. Female similar, with the upper part of the head and the band on the neck brown. Length seven inches and a quarter, wing five.

"This species, though smaller, resembles in plumage the Ring Plover of Europe. In the month of May the American or Semipalmated Ring Plover is seen pursuing its annual journey to the North. It returns to us in the latter part of August. It frequents similar situations with the Semipalmated Sandpiper, with which it is often seen gleaning its fare, and, like that bird, admits of near approach. When alarmed, it utters a sharp note. Late in autumn it migrates to the South, and, according to Mr. Audubon, spends the winter in the Floridas."

No. 4. Piping Plover—*Charadrius Melodius.*
Vulgo, *Beach Bird.*

Ring Plover, Charadrius hiaticula, Wils. Amer. Orn. Charadrius melodius, Ord. Piping Ring Plover, Nutt. Mann. Piping Plover, Charadrius melodius, Aud. Orn. Biog.

"*Specific Character.*—Bill shorter than the head; at base orange colour, toward the end black; fore-neck and cheeks pure white; bordered above with black; rest part of the head very pale brown. Adult male with the bill short, orange at the base, anterior to the nostrils black; forehead white, with a band of black crossing directly above; upper part of the head, hind-neck, back, scapulars, and wing coverts pale-brown; rump white, the central feathers tinged with brown; tail brown, white at base, tipped with the same; lateral feathers pure white—the next with a spot of blackish brown near the end; upper tail coverts white; primaries brown; a large portion of the inner webs white; a spot of the same on the outer webs of the inner quills; secondaries white, with a large spot of brown toward

the ends; lower surface of the wings white; a black band round the lower part of the neck, broadest on the sides where it terminates; entire lower plumage white. Female similar, with the band on the neck brown. Length seven inches, wing four and a half.

"To the south shore of Long Island the Piping Plover is common. On the north side of the bay I have seldom seen it. It seems to prefer the sandy beaches and shoals, where it collects small bivalve shells which lie exposed at low water. I have also observed it along the surf, feeding on the deposite of the receding wave. It breeds here, making no nest, other than a slight excavation in the sand; the eggs, four in number, are of a pale-yellowish or cream-colour, speckled with brownish-black.

"When pursued, it runs rapidly; if closely followed, it takes wing, uttering a mellow note—though at such times its voice is more shrill than the soft tones it makes when not disturbed. In autumn, like most of the shore-birds, it gets very fat, and is excellent food. With the bay-men it is familiar by the name of 'Beach Bird.'"—*Giraud's Birds of Long Island.*

In addition to these we have the well-known, common and beautiful variety, the KILLDEER PLOVER, *Charadrius Vociferus*, so named from its peculiar cry, which it is both cruel and useless to kill, as it is too insignificant to be regarded as game; the ROCKY MOUNTAIN PLOVER, *Charadrius Montanus*, which is too rare, and WILSON'S PLOVER, *Charadrius Wilsonius*, too humble to be regarded as game.

THE PHALAROPES and Lobefoots come under the same predicament with the varieties of Plover last named, and we shall accordingly pass on to the CURLEWS, three varieties of which are commonly killed along our shores, not considering the AVOSET, *Recurvirostra Americana*, known by gunners as the "Blue Stocking," or the BLACK-NECKED STILT, *Himantopus Nigricollis*, or "Lawyer," as he is sometimes called,

worthy of any notice beyond the mention of their names, although they are often shot with other varieties of shore-birds.

CURLEWS.

No. 1. The Long-billed Curlew, or Sickle-bill—*Numenius Longirostris.*

"*Specific Character.*—Bill toward the end decurved; upper part of the throat, and a band from the bill to the eye, light-buff; general plumage pale reddish-brown; head and neck streaked with dusky; upper parts marked with blackish-brown; tail barred with the same; abdomen plain reddish-brown; feet bluish. Length twenty-six inches, wing eleven. The bill of the specimen from which this description is taken, measures eight inches. The bills of individuals of this species vary, but the length is at all times sufficient to determine the species.

"This bird is more abundant at the south. On 'Folly Island,' about twenty miles below Charleston, I am informed that many of them breed. They are regular visitors at Egg Harbour and Long Island in the spring and summer, and have been seen in the latter place as late as the middle of November. Mr. Brasher informs me that he has met with it on the prairie lands in Illinois in the month of May.

"The Long-billed Curlew, or 'Sickle-bill,' as many term it, frequents the muddy shores of beaches and marshes, where it collects minute shell-fish, which, with worms, and various insects, constitute its food. When moving about in flocks, they fly much after the manner of Wild Geese, the leaders uttering a hoarse, dull note, which, by imitating, the group readily obeys, and are proverbial for answering the fowler's call when at a greater distance from his decoys than any other species of shore birds. When approaching near to the decoys, they spread their wings, and sail slowly up, presenting

such a fair mark, that those singled out by the gunner seldom escape. Its flesh is rank, the young partaking of the same flavour. The sympathy existing in these birds is so strong, that I have known of instances of flocks being kept within gun-shot by the cries of their wounded companions, until as many as fifteen have shared a similar fate."

No. 2. The Hudsonian Curlew—*Numenius Hudsonicus.* Vulgo, *Short-billed Curlew. Jack Curlew.*

Esquimaux Curlew, Scolopax borealis, Wils. Amer. Orn. Numenius Hudsonicus, Bonap. Syn. Numenius Andronicus, Hudsonian Curlew, Sw. and Rich. Esquimaux Curlew, Numenius Hudsonicus, Nutt. Mann. Hudsonian Curlew, Numenius Hudsonicus, Aud. Orn. Biog.

"*Specific Character.*—Length of bill three inches and three-quarters; tarsi two inches; lower parts white. Adult with the upper part of the head deep-brown, with a central and two lateral lines of whitish; a brown line from the bill to the eye, and another behind the eye; neck all round pale yellowish-gray, longitudinally streaked with brown, excepting the upper part of the throat, which is grayish-white; upper parts in general blackish-brown, marked with numerous spots of brownish-white, there being several along the margins of each feather; wings and rump somewhat lighter; upper tail coverts and tail barred with dark-brown and olivaceous gray; primaries and their coverts blackish-brown, all with transverse yellowish-gray markings on the inner web; the shaft of the first quill white—of the rest brown; breast and abdomen grayish-white, the sides tinged with cleam-colour, and barred with grayish-brown; bill rather more than twice the length of the head, of a brownish-black colour—at the base of the lower mandible, flesh-coloured. Length eighteen inches, wing nine and a half.

"This bird arrives on Long Island in the month of May. It frequents the marshes and muddy flats, feeding on worms and minute shell-fish. With us, it is not so abundant as the long-billed species, with which

it sometimes associates. Early in June it moves on to the North, where it passes the season of reproduction; in the latter part of August, while journeying southward, it again makes its appearance on the salt marshes; and sometimes it frequents the uplands, where it procures berries and insects of various kinds, on which it grows very fat—though in general its flesh is not well flavoured.

"The flight of the Hudsonian Curlew is easy and steady; it obeys the fowler's whistle, and presents an excellent mark. This bird is remarkable for sympathizing with its wounded companions—a trait of character so proverbial in the Long-billed Curlew.

"Occasionally stragglers are observed to linger behind until the early part of November; but in general, all have left for winter quarters by the middle of October, The name generally given to it by our gunners, is 'Short-billed' or 'Jack Curlew.'"

No. 3. Esquimaux Curlew—*Numenius Borealis.*

Vulgo, *Doe Bird—Futes.*

Numenius borealis, Bonap. Syn. Numenius borealis, Esquimaux Curlew, Sw. and Rich. Esquimaux Curlew, Numenius borealis, Nutt. Mann. Esquimaux Curlew, Numenius borealis, Aud. Orn. Biog.

"*Specific Character.*—Bill along the gap about two inches and a quarter; tarsi one inch and five-eighths; upper parts dusky-brown with pale yellowish-white, marked all over with pale reddish-brown. Adult with a line of white from the bill to the eye: eyelids white; upper part of the head dusky, spotted in front with grayish-white, a medial band of the same colour; throat white; neck and breast yellowish-gray, with longitudinal markings of dusky on the former, pointed spots of the same colour on the latter; abdomen dull yellowish-white; flanks barred with brown; lower tail coverts the same as the abdomen; tail and upper tail coverts barred with pale reddish-brown and dusky, tipped with yellowish-white; upper parts brownish, the

feathers tipped with pale reddish-brown, the scapulars margined and tipped with lighter; primaries dark-brown, margined internally with lighter—the first shaft white, with the tip dusky—the rest brown. Length fourteen inches and a half, wing eight.

"In New Jersey, New York, Massachusetts, and Rhode Island, this species is seen every season. It frequents the open grounds in the vicinity of the sea-coast, feeding on grasshoppers, insects, seeds, worms, and berries. It arrives among us in the latter part of August, and remains until the first of November, when it assembles in flocks, and moves off to its winter quarters which are said to be south of the United States. I have shot a few stragglers in this vicinity as late as the 20th of November. It occasionally associates with the Golden Plover. In the autumn it is generally in fine condition, and unlike the former two, its flesh is well flavoured. In the vicinity of New York it is known by the name of 'Futes'—in the Eastern States it is called 'Doe Bird.' It breeds on the barren grounds at the North."—*Giraud's Birds of Long Island.*

With this species, I conclude my notice of Shore Birds, or Bay Snipe, as they are usually and most barbarously termed; there being but two birds out of the whole number, the "Red-breasted Snipe," which is very common, and the "Semipalmated Snipe" or "Willet," which belong to the species of Snipes, or can be so termed, even by a liberal courtesy. Before proceeding, however, to enter upon the mode of taking these little waders, I shall proceed, for the sake of uniformity, to the ornithological descriptions of the Swan, Geese, and Sea Ducks.

WILD FOWL.

WILD SWANS.

THE AMERICAN WILD SWAN.—*Cygnus Americanus; Sharpless.—American Journal of Science and Arts.*

"Male, 53.84.

"Common during winter, in the middle Atlantic districts, especially on Chesapeake Bay. Not seen south of Carolina. Columbia River; breeds in the Fur Countries.

"Adult male:

"Bill rather longer than the head, large, higher than broad at the base, gradually becoming more depressed. Upper mandible with the dorsal line concave at the commencement, then descending and very slightly convex to beyond the nostrils, at the end decurved; the ridge broad and flat at the base, gradually narrowed convex toward the end, the sides nearly erect, and somewhat concave at the base, gradually sloping, and toward the end convex, the margins nearly parallel until toward the end, when they widen a little; the tip rather abruptly rounded, unguis truncate, obovate. Nostril medial, elliptical, direct, near the ridge; nasal groove elliptical. Lower mandible flattened, slightly recurved; the angle long and rather narrow, the edges parallel, the tip truncate, the unguis somewhat triangular.

"Head of moderate size, oblong, compressed. Neck very long and slender. Body very large. Feet short, stout, placed a little behind the centre of the body; tibia bare for an inch and a half, and reticulated. Tarsus short, moderately compressed, reticulated all round with angular scales, of which the anterior are

larger; hind toe very small, scutellate above, granulate beneath. Anterior toes longer than the tarsus, the outer a little shorter than the third, all reticulate above as far as to the second joint, scutellate in the rest of their extent, connected by webs of which the margin is entire. the outer with a thick margin, the inner with a broader two-lobed margin. Claws of moderate size, arched, strong, rather acute, that of the middle toe with the inner edge dilated.

"Plumage full, compact above, blended beneath; feathers of the head and neck softer, small, ovate. rounded. Wings ample, convex; the first quill eight-twelfths of an inch shorter than the second, which is longest, but scarcely exceeds the third; the first, second and third cut out on the inner web. Secondaries long, broad and rounded. Tail very short, much rounded, of twenty broad rounded feathers, of which the lateral are an inch and nine-twelfths shorter than the middle. The bill and the bare space on the fore part of the head black, with an orange oblong patch from the anterior angle of the eye; sides of lower mandible and inside of mouth yellowish flesh-colour. Iris brown; feet and claws black. The plumage is entirely pure white.

"Length to end of tail, 53 inches; to end of wings, $50\frac{1}{2}$; to end of claws, 58; extent of wings, 84; bill along the ridge, 4; from the tip to the eye, $4\frac{8}{12}$; wing from flexure, $22\frac{1}{2}$; tail $7\frac{1}{4}$; tarsus $4\frac{9}{12}$; hind toe, $\frac{8}{12}$; its claw, $\frac{8}{12}$; second toe, $3\frac{8}{12}$; its claw, $\frac{10}{12}$; third toe $\frac{9}{12}$; its claw, $\frac{11}{12}$; fourth toe, $4\frac{8}{12}$; its claw, $\frac{7}{12}$; weight, $19\frac{1}{4}$ lbs. Another individual weighed only 14 lbs.

"The female is somewhat smaller, but otherwise similar.

"The young in its first plumage is of a uniform light bluish-gray, paler beneath, the fore and upper parts of the head tinged with red. The bill reddish flesh colour, dusky at the point; the spaces between the eye and the bill, and between its basal angles, covered with minute feathers, which entirely disappear in the adult. The feet are dull yellowish flesh colour.

"I have never observed any Swans of this species along the Atlantic coasts, or on the rivers that open upon it, beyond Cape Hatteras in North Carolina; and although they are very numerous on the waters of Chesapeake Bay, and the streams adjacent, as well as in other parts of the middle districts, I am yet of the opinion that the great body of them spend the winter about the Columbia River, extending their autumnal migrations westward, along the shores of the Pacific Ocean into California, and that the columns formed by these birds when about to leave their breeding ground in high latitudes, divide into parties, of which the less numerous bands make their way from certain points as yet unknown, toward our middle districts, while the rest are perhaps following the valleys of the Rocky Mountains.

"When travelling to a distance they proceed at a great height, with a steady and well sustained flight, though by no means so rapid as the Trumpeter Swan, this difference probably arising from the greater weight and alar extent of the latter. They usually move in long lines forming the acute angle of a baseless triangle, the leader often changing his position and falling into the rear. On several occasions I have seen seven or eight leading the long single files behind them in a kind of disorderly crowded manner, which was continued until the birds were out of sight.

"Not having had sufficient opportunities of studying the habits of these birds on the waters of the Chesapeake, where they are most numerous, while in the middle districts, I here present you with an account of them, kindly transmitted to me by Dr. Sharpless, of Philadelphia.

"About the first of September, the Swans leave the shores of the Polar Sea, according to Franklin, and resort to the lakes and rivers in and about Hudson's Bay (60 degs.), where they remain, preparing for a departure for the winter, until October, when they collect in flocks of twenty or thirty, and seizing favourable weather, they mount high in the air, form a pro-

longed wedge, and with loud screams depart for more genial climes. When making either their semi-annual migration or shorter expeditions, an occasional scream, equal to 'how do you all come on, behind?' issues from the leader, which is almost immediately responded to by some posterior Swan, with an 'all's well' vociferation. When the leader of the party becomes fatigued with his extra duty of cutting the air, he falls in the rear and his neighbour takes his place. When mounted, as they sometimes are, several thousand feet above the earth, with their diminished and delicate outline hardly perceptible against the clear blue of heaven, this harsh sound, softened and modulated by distance, and issuing from the immense void above, assumes a supernatural character of tone and impression, that excites, the first time heard, a strangely peculiar feeling.

"In flying, these birds make a strange appearance; their long necks protrude, and present, at a distance, mere lines with black points, and occupy more than one-half their whole length, their heavy bodies and triangular wings seeming but mere appendages to the prolonged point in front.

"When thus in motion, their wings pass through so few degrees of the circle, that unless seen horizontally, they appear almost quiescent, being widely different from the heavy, semicircular sweep of the Goose. The Swan, when migrating with a moderate wind in his favour, and mounted high in the air, certainly travels at the rate of one hundred miles or more an hour. I have often *timed* the flight of the Goose, and found one mile a minute a common rapidity, and when the two birds, in a change of feeding-ground, had been flying near each other, which I have often seen, the Swan invariably passed with nearly double velocity.

"The Swans, in travelling from the northern parts of America to their winter residence, generally keep far inland, mounted above the highest peaks of the Alleghanies, and rarely follow the water-courses like the Geese, which usually stop on the route, particularly if

they have taken the sea-board. The Swans rarely pause in their migratory flight unless overtaken by storm, above the reach of which occurrence they generally soar. They have been seen following the coast in but very few instances. They arrive at their winter homes in October and November, and immediately take possession of their regular feeding grounds. They generally reach these places in the night, and the first signal of their arrival at their winter abode is a general burst of melody, making the shores ring for several hours with their vociferating congratulations, while making amends for a long fast, and pluming their deranged feathers. From these localities they rarely depart, unless driven further south by intensely cold weather, until their vernal excursion. When the spring arrives, a similar collection of forces as at the north, takes place in March, and after disturbing the tranquil bosom of the water for a night, by incessant washing and dressing, and alarming the quiet neighbourhood by a constant clatter of consulting tongues, they depart for the north about daylight with a general *feu-de-joie* of unmusical screams.

"The Chesapeake Bay is a great resort for Swans during the winter, and whilst there they form collections of from one to five hundreds on the flats near the western shores, and extend from the outlet of the Susquehanna River almost to the Rip-Raps. The connecting streams also present fine feeding grounds. They always select places where they can reach their food by the length of their necks, as they have never, so far as I can learn, been seen in this part of the world to dive under water, either for food or safety. Hearne says that, at Hudson's Bay, 'by diving and other manœuvres it is impossible to take them by hand while moulting.' I have often seated myself for hours within a short distance of several hundred Swans, to watch their habits and manners, and never saw one pass entirely under the water, though they will keep the head beneath the surface for five minutes at a time.

"The food they are most partial to is the canvass-back grass, *Valisneria Americana*, worms, insects, and shell-fish; never, I believe, touching fish, however hardly pressed for support. The Geese and Swans frequently feed, but never fly, together.

"These birds are so exceedingly watchful, that if there are but three of them feeding together, one will generally be on guard, and when danger approaches there is some mute sign of alarm, for I have never heard a sound at such times.

"However much noise has been made before, the instant an alarm occurs there is perfect silence, their heads are erected, a moment's examination determines their course, when, if the case be not too urgent, they depend on swimming if escape be necessary. They rarely fly even from the pursuit of a boat, unless very closely followed, and when they do arise from the water, either for escape or from choice, it is generally with a scream, and when alighting particularly among others there is usually a 'how d'ye do' sort of expression on all sides. Even when wing-broke they can swim with great rapidity, and if not otherwise hurt, a single oarsman in the best constructed boat, can rarely overtake them.

"Whilst feeding and dressing, Swans make much noise, and through the night their vociferations can be heard for several miles. Their notes are extremely varied, some closely resembling the deepest base of the common tin-horn, whilst others run through every modulation of false note of the French-horn or clarionet. Whether this difference of note depends on age or sex I am not positively assured.

"The Swan requires five or six years to reach its perfect maturity of size and plumage, the yearling cygnet being about one-third the magnitude of the adult, and having feathers of a deep leaden colour. The smallest Swan I have ever examined, and it was killed in my presence, weighed but eight pounds. Its plumage was very deeply tinted, and it had a bill of a very beautiful

flesh colour, and very soft. This cygnet, I presume, was a yearling, for I killed one myself the same day, whose feathers were less dark, but whose bill was of a dirty white; and the bird weighed twelve pounds. This happened at a time when my attention was not turned scientifically to the subject, and I have forgotten the other singularities of the specimens. By the third year the bill becomes black, and the colour of the plumage less intense, except on the top of the head and the back part of the neck, which are the last parts to be forsaken by the colour. Swans of the sixth year have assumed all the characters of the adult, and very old birds have a hard protuberance on the bend of the last joint of the wing. When less than six years old, these birds are very tender and delicious eating, having the colour and flavour of the goose; the latter quality, however, being more concentrated and luscious. Hearne considers a Swan, 'when roasted, equal in flavour to young heifer beef, and the cygnets are very delicate.' As these birds live to a great age, they grow more tough and dry as they advance, the *patriarchs* being as unmasticable and unsavoury as the cygnets are tender and delightful.

"There are many modes practised in the United States of destroying these princely ornaments of the water. In shooting them while flying with the wind, the writer just mentioned declares 'they are the most difficult bird to kill I know, it being frequently necessary to take sight ten or twelve feet before the bill.' This I should consider an unnecessary allowance, unless driven by a hurricane, but on ordinary occasions, the bill is aimed at, and if going with a breeze at a long shot, a foot before the bill would be quite sufficient. The covering is so extremely thick on old birds, that the largest drop shot will rarely kill, unless the Swan is struck in the neck or under the wing; and I have often seen large masses of feathers torn from them, without for an instant impeding their progress.

"When wounded in the wing alone, a large Swan will readily beat off a dog, and is more than a match for

a man in four foot water, a stroke of the wing having broken the arm, and the powerful feet almost obliterating the face of a good-sized duck-shooter. They are often killed by rifle balls thrown from the shore into the feeding column, and as a ball will ricochet on the water for several hundred yards, a wing may be disabled at the distance of half a mile.

"These birds are brought within shooting range by sailing down wind upon them whilst feeding, and as they rise *against* the wind, and cannot leave the water for fifteen or twenty yards, against which they strike their enormous feet and wings most furiously, great advantage is gained in distance. They should be allowed on all occasions to turn the side, for a breast-shot rarely succeeds in entering.

"When two feeding coves are separated by a single point, by disturbing the Swans on either occasionally, they will pass and repass very closely to the projection of land, and usually taking as they do the straight line, each gunner, to prevent disputes, indicates the bird he will shoot at.

"In winter, boats covered with pieces of ice, the sportsmen being dressed in white, are paddled or allowed to float during the night into the midst of a flock, and they have oftentimes been killed by being knocked on the head and neck by a pole. There is, however, much danger in this mode, as others may be engaged in like manner, and shooting at a short distance, the persons might not be readily distinguished from the Swans. These birds seem well aware of the range of a gun, and I have followed them in a skiff for miles, driving a body of several hundreds before me, without the possibility of getting quite within shooting distance.

"When more than one person is shooting, it is usual for each to select a particular Swan, and if there be not enough for all, two will take a particularly good bird, and, if it be killed, will decide its possession afterward by some play of chance. Few are willing to take the first bird, even though their position of last in the

direction of flight would compel them according to usage to do so, not only from the difficulty and uselessness of killing the old ones, but because there is much less chance of a stray shot from a neighbour's gun assisting in the destruction.

"In the autumn of 1829, the writer, with another person, was on Abbey Island, where seven Swans were approaching the point in one line, and three others at a short distance behind them. The small group appeared exceedingly anxious to pass the larger, and as they doubled the point at about sixty yards' distance, the three formed with the second bird of the larger flock a square of less than three feet. At this moment both guns were discharged, and three Swans were killed, and the fourth so much injured that he left the flock and reached the water at a short distance in the bay; but it being nearly dark, his direction was lost. These, with another that had been killed within an hour, and three which were subsequently obtained, were all of less than five years of age, and averaged a weight of eighteen pounds.

"The Swans never leave the open shores of the bay for the side streams, and the Geese rarely through the day, though they often retire to the little inlets to roost or feed at night. Few of these large game are found after their regular settlement above Spesutic Island, but lie on the flats in mingled masses of from fifty to a hundred, down the western shores, even as far as the Potomac. During a still night, a few Swans may often be seen asleep in the middle of the bay, surrounded by a group of far more watchful Geese; and the writer paddled at day-break one morning to within ten feet of an enormous sleeping Swan, who had probably depended for alarm on the wary Geese by which he had been surrounded, but which, as we approached, swam away. By an unforeseen occurrence, when a few seconds more would have enabled us to stun him by a blow, he became alarmed, and started in a direction that prevented a probable chance of killing, from our position

and the tottering nature of the skiff."—*Audubon's Birds of America.*

THE TRUMPETER SWAN—*Cygnus Buccinator; Richardson.*

"Adult, 68; wing, 27; young 52½.91.

"Breeds from North California. Northward. Fur countries. Abundant during the winter on the Mis souri, Mississippi, Ohio, and in Texas. Never seen eastward of South Carolina.

"Adult male.

"Bill longer than the head, higher than broad at the base, depressed, and a little widened towards the end, rounded at the tip. Upper mandible with dorsal line sloping, the ridge very broad at the base, with a large depression, narrowed between the nostrils, convex toward the end, the sides nearly erect at the base, gradually becoming more horizontal and convex toward the end; the sides soft and thin, with forty-five transverse little elevated lamellæ internally, the unguis obovate. Lower mandible narrow, flattened, with the angle very long, rather narrow, anteriorly rounded, the sides convex, the edges erect, inclinate, with about twenty-six external lamellæ, and about seventy above, the unguis obovate triangular. Dorsal groove elliptical sub-basal, covered by the soft membrane of the bill; nostrils submedial, longitudinal, placed near the ridge, elliptical, pervious.

"Head of moderate size, oblong, compressed; neck extremely long and slender. Body very large, compact, depressed. Feet short, stout, placed a little behind the centre of the body; legs bare an inch and a half above the joint. Tarsus short, a little compressed, covered all round with angular scales, of which the posterior are extremely small. Hind toe extremely small, with a very narrow membrane; third toe longest, fourth very little shorter, second considerably shorter; anterior toes covered with angular scales for nearly half the length,

scutellate in the rest of their extent, and connected by broad reticulated entire membranes. Claws rather small, strong, arched, compressed, rather obtuse, that of the middle toe much larger, with a dilated thin edge.

"A portion of the forehead about half an inch in length, and the space intervening between the bill and eye are bare. Plumage dense, soft and elastic; on the head and neck the feathers oblong, acuminate; on the other parts in general, broadly ovate, rounded; on the back short and compact. Wings broad and long, the anterior prominence of the first phalangeal bone very prominent; primaries curved, stiff, tapering to an obtuse point; the second longest, exceeding the first by half an inch, and the third by a quarter of an inch, secondaries very broad and rounded, some of the inner rather pointed. Tail very short, graduated, of twenty-four stiffish, moderately broad, rather pointed feathers, of which the middle exceeds the lateral by two inches and a quarter.

"Bill and feet black, the outer lamellate edges of the lower mandible, and the inside of the mouth yellowish flesh colour. The plumage is pure white, excepting the upper part of the head, which varies from brownish red to white, apparently without reference to age or sex, as in *Cygnus Americanus* and *Anser Hyperboreus*.

"Length to end of tail, 68 inches; bill along the ridge, $4\frac{7}{12}$; from the eye to the tip, 6; along the edge of the lower mandible, $4\frac{7}{12}$; breadth of upper mandible near the base, $1\frac{5}{12}$; near the end, $1\frac{6}{12}$; wing from flexure, 27; tail, $8\frac{1}{2}$; tarsus, $4\frac{8}{12}$; first toe, $\frac{10}{12}$—its claw, $\frac{5}{12}$; second toe, $4\frac{9}{12}$—its claw, 1; third toe, 6—its claw, $1\frac{1}{12}$; fourth toe, $5\frac{11}{12}$—its claw, $\frac{10}{12}$.

"Young after the first month:

"In winter the young has the bill black, with the middle portion of the ridge to the length of an inch and a half, light flesh-colour, and a large elongated patch of light dull purple on each side; the edge of the lower mandible and the tongue dull yellowish flesh-colour; the eye is a dark brown. The feet dull yellowish-brown

tinged with olive, the claws brownish-black, the webs blackish-brown. The upper part of the head and cheeks are light reddish-brown, each feather having toward its extremity a small, oblong, whitish spot, narrowly margined with dusky; the throat nearly white, as well as the edge of the lower eyelid. The general colour of the other parts is grayish-white, slightly tinged with yellow; the upper part of the neck marked with spots similar to those on the head.

"Length to end of tail, 52½ inches; extent of wings, 91; wing from flexure, 23¼; bill along the ridge, 4⅜; from the angle of the eye, 6; along the edge of the lower mandible, 4⅛; tarsus, 4½; hind toe, 1¼—its claw, ⅜; middle toe, 6¼—its claw, 1; inner toe, 4½—its claw, $\frac{10}{12}$; outer toe, 6¼—its claw, ⅝; weight, 19 lbs. 8 oz. The bird was very poor.

"The Trumpeter Swans make their appearance on the lower portions of the waters of the Ohio, about the end of October. They throw themselves at once into the larger ponds, or lakes, at no great distance from the river, giving a marked preference to those which are closely surrounded by dense tall cane-brakes, and there remain until the water is closed by the ice, when they are forced to proceed southward. During mild winters I have seen Swans of this species in the ponds about Henderson, until the beginning of March, but only a few individuals, which may have staid there to recover from their wounds. When the cold became intense, most of those which visited the Ohio would remove to the Mississippi, and proceed down that stream, as the severity of the weather increased, or return if it diminished; for it has appeared to me that neither very intense cold, nor great heat, suit them so well as a medium temperature. I have traced the winter migrations of this species so far southward as Texas, where it is abundant at times.

"At New Orleans, where I made a drawing of the young bird here described, the Trumpeters are frequently exposed for sale in the markets, being procured

on the ponds of the interior, and on the great lakes leading to the waters of the Gulf of Mexico. This species is unknown to my friend, the Rev. John Bachman, who, during a residence of twenty years in South Carolina, never saw or heard of one of these, whereas in hard winters the *Cygnus Americanus* is not uncommon, although it does not often proceed further southward than that State. The waters of the Arkansas and its tributaries are annually supplied with Trumpeter Swans; and the largest individual which I have examined, was shot on a lake near the junction of that river with the Mississippi. It measured nearly ten feet in alar extent, and weighed above thirty-eight pounds.

"The flight of the Trumpeter Swan is firm, at times greatly elevated and sustained. It passes through the air by regular beats, in the same manner as Geese, the neck stretched to its full length, as are the feet, which project beyond the tail. When passing low, I have frequently thought that I heard a rustling sound from the motion of the feathers of their wings. If bound to a distant place, they form themselves in angular lines, and probably the leader of the flock is one of the oldest of the males; but of this I am not at all sure, as I have seen at the head of the line a gray bird, which must have been a young one of that year.

"This Swan feeds principally by partially immersing the body, and extending the neck under water, in the manner of fresh-water Ducks, and some species of Geese, when the feet are often seen working in the air, as if to aid in preserving the balance. Often, however, it resorts to the land, and there picks at the herbage, not sideways as Geese do, but more in the manner of Ducks and poultry. Its food consists of roots of different vegetables, leaves, seeds, various aquatic insects, land snails, small reptiles and quadrupeds. The flesh of a Cygnet is pretty good eating, but that of an old bird is dry and tough.

"Dr. Richardson informs us that it 'is the most common Swan in the interior of the fur countries. It

breeds as far South as latitude 61°, but principally within the Arctic Circle; it precedes the Goose a few days in its migrations.'"—*Audubon's Birds of America.*

WILD GEESE.

THE CANADA GOOSE — *Anas Canadensis; Wilson. Anser Canadensis; Bon. Syn. Anser Canadensis; Sw. & Rich. F. Bor. Americ.* Vulgo, *The Wild Goose.*

" Male, 43.65. Female, 41.

" Breeds sparingly from the Mississippi to Nova Scotia, abundantly in Labrador, and farther North. In the interior on the Missouri, and across to the Columbia River, abundant. Migrates in winter."—*Audubon's Birds of America.*

" *Specific Character.*—Length of bill from the corner of the mouth to the end two inches and three-sixteenths; length of tarsi two inches and seven-eighths; length from the point of the bill to the end of tail about forty inches; wing eighteen; the head and greater portion of the neck black; cheeks and throat white. Adult with the head, greater part of the neck, primaries, rump and tail black; back and wings brown, margined with paler brown; lower part of the neck and under plumage whitish gray; flanks darker gray; cheeks and throat white, as are the upper and under tail coverts. The plumage of the female rather duller.

" Late in autumn, especially when the wind is from the north-east, the Canada Geese are seen in our section of country, sailing high in the air, making their accustomed tour at that season. Impelled by nature, they quit their northern abode, and hazard an escape from the artifices of man, sooner than perish amid the icy barrens of the frozen regions. When migrating, many flocks unite and form a vast column, each band having its chosen leader. They generally continue flying during the night, but occasionally alight and await

the day. Before doing so, however, their experienced pioneers survey the space below, and select a place favourable for food and safety. Sentinels are then appointed from among the ganders to sound the alarm should an enemy appear. I have seen them adopt the same precaution when sanding in large flocks by day. Those separate from the main body would move about with heads erect, ready to catch the first sign of intrusion; 'after strutting their hour' would return to the main body, their places being immediately supplied by others. I have often been disappointed by such a movement, supposing it to be a signal for flight, looked well to my gun, but after waiting a few moments in suspense, discovered it to be merely a change of guard.

"The hoarse honking of the gander is so familiar to the inhabitants of our country, that it is impossible for them to arrive among us without making their visit known. All welcome their return; the once keen eye of the aged gunner again sparkles as he beholds their grand and lofty flight. The firelock, that useful piece of furniture which ornaments all our farm-houses, is immediately brought into requisition, and the village storekeeper is industriously employed in answering the demand for 'single B's.' The report of guns reverberates through the country, but still these sagacious birds keep on their steady course; occasionally a single feather may be seen slowly descending to the earth, as if to inform the eager gunner of their nicely-calculated distance, or perchance after the loud report of some well-mettled piece, a single bird may be seen leaving the flock, its death-knell sounded by its more fortunate, but terrified companions.

"But not so with the practised bay-gunner. On the return of the Geese his prospects brighten; he looks upon them as debtors returned to cancel a long-standing obligation; he wastes not his ammunition on space; he has watched their flight, and discovered their favourite sanding place; the long-neglected decoys are placed in his skiff, and before daylight has appeared, he is pulling

his way across the rough bay with glorious anticipations of profit. On gaining the desired point, he puts out his decoys, sinks a box in the sand, and there lies concealed. As they approach, his keen eye glances quickly over his trusty gun, and ere a moment elapses death is among them.

"When wounded they have the power of sinking themselves in the water, leaving their bill out. In this situation they will remain a considerable length of time, The dead body of a Goose, when lying on the water. will float two-thirds out. In stormy weather they fly low; when it is very foggy, they frequently become confused, and alight on the ground.

"The Canada Geese remain with us until our bays are frozen, and return with the disappearance of ice in the spring; at this season their stay is short. Early in April they collect in large flocks, and almost simultaneously move off. Their food consists of sedge roots, marine plants, berries, and herbage of most kinds. In winter they are common on the lakes in the neighbourhood of the lower Mississippi, where I was informed by the inhabitants that a few stragglers remain with them during summer.

"This species is not the origin of the Domestic Goose, as is by some supposed, the genealogy of which is said to be traced to the Bean Goose* of Europe."—*Giraud's Birds of Long Island.*

"This is the common Wild Goose of the United States, universally known over the whole country, whose regular periodical migrations are the sure signals of returning spring, or approaching winter. The tracts of the vast migratory journeys are not confined to the sea-coast, or its vicinity. In their aërial passage to and from the North, these winged pilgrims pass over the interior on both sides of the mountains, as far West, at least, as the Osage River; and I have never yet visited

* Not to the Bean Goose but to the Gray-lag, commonly known as the Wild Goose—*l'Oie Sauvage.*

any quarter of the country, where the inhabitants are not familiarly acquainted with the regular passing and repassing of Wild Geese. The general opinion here is, that they are on the way to the lakes to breed; but the inhabitants on the confines of the great lakes that separate us from Canada, are equally ignorant with ourselves of the particular breeding-places of these birds. There the journey North is but commencing, and how far it extends, it is impossible for us at present to ascertain, from our little acquaintance with those frozen regions. They were seen by Hearn, in large flocks within the arctic circle, and were then pursuing their way still further North. Captain Phipps speaks of seeing Wild Geese feeding at the water's edge on the dreary coast of Spitsbergen, in lat. 80° 27′. It is highly probable that they extend their migrations under the very Pole itself, amid the silent desolations of unknown countries, shut out since creation to the prying eye of man by everlasting and insuperable barriers of ice. That such places abound with suitable food, we cannot for a moment doubt, while the absence of the great destroyer, rain, and the splendour of a perpetual dry May, render such regions the most suitable for their purpose. Having fulfilled the great law of nature, the approaching rigour of that dreary climate obliges these vast congregated flocks to steer for the most genial regions of the South. And no sooner do they arrive at those countries of the earth, inhabited by man, than carnage and slaughter is commenced on their ranks. The English at Hudson's Bay—says Pennant—depend greatly on Geese, and in favourable years kill three or four thousand, and barrel them up for use. They send out their servants, as well as Indians, to shoot these birds on their passage. It is in vain to pursue them: they therefore form a row of huts, made of boughs, at musket-shot distance from each other, and place them in a line across the vast marshes of the country. Each stand of hovel, as it is called, is occupied by a single person. These attend the flight of the birds, and on their approach, mimic

their cackle so well, that the Geese will answer, and wheel and come nearer the stand. The hunter keeps motionless, and on his knees, with his gun cocked, the whole time, and never fires until he has seen the eyes of the Geese. He fires as they are going from him, then picks up another gun that lies by him, and discharges that. The Geese which he has killed, he sets upon sticks, as if alive, to decoy others; he also makes artificial birds for the same purpose. In a good day, for they fly in very uncertain and unequal numbers, a single Indian will kill two hundred. Notwithstanding every species of Goose has a different call, yet the Indians are admirable in the imitations of every one. The autumnal flight lasts from the middle of August to the middle of October. Those which are taken in this season, when the frosts begin, are preserved in their feathers, and left to be frozen, for the fresh provisions of the winter stock. The feathers constitute an article of commerce, and are sent to England. The vernal flight of these Geese lasts from the middle of April until the middle of May. Their first appearance coincides with the thawing of the swamps, when they are very lean. Their arrival from the South is impatiently awaited,—it is the harbinger of the spring, and the month named by the Indians the Goose Moon. They appear usually at their settlements about St. George's Day, O.S., and fly northward to settle in security. They prefer islands to the continent, as further from the haunts of man. After such prodigious havoc as thus appears to be made among these birds, and the running the gauntlet, if I may so speak, for many hundreds of miles through such destructive fires, no wonder they should have become more scarce, as well as shy, by the time they reach the shores of the United States.

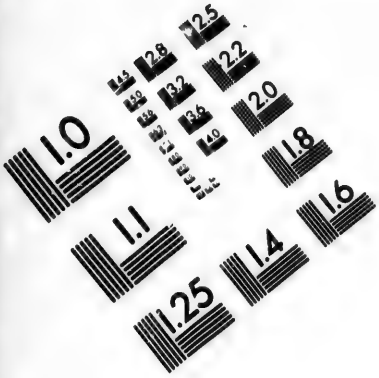
"Their first arrival on the coast of New Jersey is early in October, and their first numerous appearance is the sure prognostic of severe weather. Those which continue all winter frequent the shallow bays and marsh islands, the principal food being the broad tender green

leaves of a marine plant which grows on stones and shells, and is usually called sea-cabbage; and also the roots of the sedge, which they are frequently observed in the act of tearing up. Every few days they make an excursion to the inlets on the beach for gravel. They cross indiscriminately over land or water, generally taking the nearest course to their object, differing in this respect from the Brant, which will often go a great way round by water, rather than cross on the land. They swim well, and if wing-broke, dive and go a long way under water, causing the sportsman a great deal of fatigue before he can kill them. Except in very calm weather, they rarely sleep on the water, but roost all night in the marshes. When the shallow bays are frozen, they seek the mouth of inlets near the sea, occasionally visiting the air-holes in the ice; but these bays are seldom so completely frozen as to prevent them from feeding on the bars.

"The flight of the Wild Geese is heavy and laborious, generally in a straight line, or in two lines approximating to a point, thus ⊳; in both cases, the van is led by an old gander, who every now and then pipes his well-known *honk*, as if to ask how they come on, and the honk of 'all's well' is generally returned by some of the party. Their course is in a straight line, with the exception of the undulations of the flight. When bewildered in foggy weather they appear sometimes in great distress, flying about in an irregular manner, and for a considerable time, over the same quarter, making a great clamour. On these occasions, should they approach the earth, and alight, which they sometimes do, to rest and recollect themselves, the only hospitality they meet with, is death and destruction from a whole neighbourhood, already in arms for their ruin. Wounded Geese have, in numerous instances, been completely domesticated, and readily pair with the tame Gray Geese. The offspring are said to be larger than either, but the characteristic mark of the Wild Goose still predominate. The gunners on the

sea-shore here, have long been in the practice of taming the wounded of both sexes, and have sometimes succeeded in getting them to pair and produce. The female always seeks out the most solitary place for her nest, not far from the water. On the approach of every spring, however, these birds discover symptoms of great uneasiness, frequently looking up into the air, attempting to go off. Some whose wings have been closely cut, have travelled on foot in a northern direction, and have been found at a distance of several miles from home. They hail every flock that passes overhead, and the salute is sure to be returned by the voyagers, who are only prevented from alighting among them by the presence and habitations of man. The gunners take one or two of these domesticated Geese with them, to those parts of the marshes on which the wild ones are accustomed to fly, and concealing themselves within gun-shot, wait for a flight, which is no sooner peceived by the decoy Geese, than they begin calling aloud, until the whole flock approaches so near as to give them an opportunity of discharging two, and sometimes three, loaded muskets among them, by which great havoc is made.

"The Wild Goose, when in good order, weighs from ten to twelve, and sometimes fourteen pounds. They are sold in the Philadelphia markets at from seventy-five cents to one dollar each, and are estimated to yield half a pound of feathers a-piece, which produces twenty-five or thirty cents more. The Canada Goose is now domesticated in numerous quarters of the country, and is remarked for being extremely watchful, and more sensible of approaching changes in the atmosphere, than the common Gray Goose. In England, France, and Germany, they have also been long ago domesticated. Buffon, in his account of this bird, observes:—'At Versailles, where they breed familiarly with the Swans, they were oftener on the grassy margins, than in the water;' and adds, 'there is at present a great number of them on the magnificent pools that decorate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the charming gardens of Chantilly.' Thus has America already added to the stock of domestic fowls, two species, the Turkey and the Canada Goose. The strong disposition of the wounded Wild Goose to migrate to the North in spring, has been already taken notice of. Instances have occurred, where the wounds having healed, they have actually succeeded in mounting into the high regions of the air, and joined a passing party to the North; and, extraordinary as it may appear, I am well assured by the testimony of several respectable persons who have been eye-witnesses to the fact, that they have also been known to return again in the succeeding autumn to their former habitation. These accounts are strongly corroborated by a letter which I some time ago received from an obliging correspondent at New York, which I shall here give at large, permitting him to tell his story in his own way, and conclude my history of this species.

" 'Mr. Platt, a respectable farmer on Long Island, being out shooting in one of the bays, which in that part of the country abound with water-fowl, wounded a Wild Goose. Being wing-tipped, and unable to fly, he caught it, and brought it home alive. It proved to be a female; and turning it into his yard, with a flock of tame Geese, it soon became quite tame and familiar, and in a little time its wounded wing entirely healed. In the following spring, when the Wild Geese migrate to the northward, a flock passed over Mr. Platt's barn-yard, and just at that moment their leader happening to sound his bugle note, our Goose, in whom its new habits and enjoyments had not quite extinguished the love of liberty, and remembering the well-known sound, spread its wings, mounted into the air, joined the travellers, and soon disappeared. In the succeeding autumn, the Wild Geese, as was usual, returned from the northward in great numbers, to pass the winter in our bays and rivers; Mr. Platt happening to be standing in his yard, when a flock passed directly over his barn. At that instant he observed three Geese detach them-

selves from the rest, and after wheeling round several times, alighted in the middle of the yard. Imagine his surprise and pleasure, when, by certain well-remembered signs, he recognised in one of these three Geese, his long-lost fugitive. It was she, indeed; she had travelled many hundred miles to the lakes—had there hatched and reared her offspring, and had now returned with her little family, to share the sweets of civilized life. The truth of the foregoing relation can be attested by many respectable people, to whom Mr. Platt has related the circumstances, as above detailed. The birds were all living, and in possession about a year ago, and had shown no disposition whatever to leave him.'"—*Wilson's American Ornithology.*

Hutchins' Goose.—*Anser Hutchinsii.*

Hutchins' Bernacle Goose, Sw. and Rich. Hutchins' Goose, Anser Hutchinsii, Aud. Orn. Biog.

"*Specific Character.*—Bill from the corner of the mouth to the end, one inch and nine-sixteenths; length of tarsi, two inches and seven-sixteenths; head and upper part of the neck black; cheeks white. Adult with the bill black; head and upper part of the neck glossy black; a white patch on the sides of the head and neck, similar to *A. Canadensis;* upper parts brownish-gray, the feathers margined with paler; lower parts pale grayish-brown, margined with yellowish brown; abdomen and lower tail coverts white; tail of sixteen feathers, of a deep brown colour, as are the primary quills; feet and claws black. Length twenty-seven inches, wing sixteen.

"At the eastern extremity of Long Island, this species is not uncommon. At Montauk it is known by the name of 'Mud Goose,' and is frequently observed in company with the preceding species, to which, in the general colour of the plumage, it bears a strong resemblance. In size it is much smaller, though larger than the 'Brant,' exceeding that species about three inches,

and having the white patch on the sides of the head similar to the Canada Goose.

"On the south shore of Long Island it is not known to the gunners, though I have no doubt that it is frequently procured there; and from the close resemblance it bears in its general markings to the Canada Goose, is considered a variety of that species. At some seasons it has been known to be quite abundant on the coast of Massachusetts, in the vicinity of Boston, and it has been shot on the Chesapeake.

"Dr. Richardson states that it is well known at Hudson's Bay, and that it is always found on the sea-coast, feeding on marine plants, and the mollusca which adhere to them, whence its flesh derives a strong fishy taste."—*Giraud's Birds of Long Island.*

BRENT GOOSE.

Brant, Anas Bernicla, Wils. Amer. Orn. Anser Bernicla, Bonap. Syn. Anser Berniola, Brent Goose, Sw. and Rich. Brant or Brent Goose, Nutt. Mann. Brent Goose, Anser Bernicla, Aud. Orn. Biog.

"*Specific Character.*—Bill black; head and neck all round black; a patch on the sides of the neck white; upper parts brownish-gray—the feathers margined with light grayish-brown; quills and primary coverts gra- black; fore part of the breast, light brownish-gray, the feathers terminally margined with grayish white: abdomen and lower tail covers white; sides gray, the feathers rather broadly tipped with white. Length two feet, wing fourteen inches and a half. Female rather smaller.

"The Brent Goose, or the 'Brant,' as it is more familiarly called, makes its appearance among us about the 15th of October. Mr. Audubon found it breeding at Labrador, but was prevented from securing its eggs in consequence of the great depth of the moss on which it was nesting.

"In the spring and autumn it is very numerous on our coast, exceeding in number the Canada Geese and Dusky Ducks. Its manner of flying is different from

that of the Canada Goose—moving in more compact bodies, less rapidly, and without seeming to have a chosen leader—that marked characteristic in the flight of the latter. While in our bays it appears inactive, seldom taking to wing unless disturbed by a passing boat or the near report of a gun.

"The Brent rises slowly, and when on the wing, moves sluggishly for a short distance, and if not attracted by a distant flock, frequently returns to the place it had left. Its food consists of a marine plant—*Zostera marina*—commonly called 'eel-grass.' At low water it is seen industriously at work, tearing up its favourite plant. After the tide has risen to such a height as to compel it to relinquish its vocation, it is seen drifting with the current, feeding sumptuously on the fruits of its labour.

"I have examined a number of these birds, and in no instance have I found fish in them.

"The Brent Geese are very fond of sanding, and resort to the bars for that purpose, at which places they are killed in great numbers by the gunners who secrete themselves in excavations made in the sand. The bar known as 'Fire Island Bar,' on the south side of Long Island, is a celebrated place for procuring them. It is included in the Nicol's Patent, and rented to two brothers by the name of Alliby at $120 per annum. I am informed that these men send to the New York market annually several hundred dollars' worth of birds, the larger proportion of which is Brent.

"This species, when passing over our bays, avoids as much as possible the points and 'kussicks,'* which makes it very difficult to be obtained, unless procured in the manner just mentioned, or by shooting from 'batteries' anchored in the shallow part of the bay. These batteries are constructed in the following manner—by making a box six feet long, two feet and a half wide, one foot deep, with the sides and ends shelving,

* "'Kussick,' 'hassick,' or 'thatch,'—local terms used by gunners, signifying large tussocks of tall grass that occur in the bays."

on which sand is placed to imitate a bar, as well as to assist in sinking the 'machine,' as it is called—so that its uppermost edges may be about even with the surface of the water. The gunner, by lying in the box on his back, is perfectly concealed, and having a large number of decoys around the battery, the deception is so perfect, that the birds often approach so near, as to give him an opportunity of discharging with effect two double-barrelled guns into a flock. Great havoc is made in this way, particularly among young birds. This mode of shooting requires two persons—one to shoot from the battery, the other to attend with a boat to collect the dead birds, and drive up flocks sitting on the bay. It is, however, objected to by many, they supposing it to be too destructive, as well as the means of driving from the bay those which escape. The Brent, especially, is a wanderer, seldom remaining longer than a few days in one place, under any circumstances—which induces many to suppose that they have a right to secure them in any way that fancy dictates.

"In 1838 a law was passed in this State, prohibiting the use of batteries. For a short time it was respected—but the gunners who depend on water-fowl shooting for a great part of their living, considered it such an invasion of their rights, that they defied it; at first shooting with masks, at the same time threatening to shoot the informer, should one be found. They finally laid aside their masks, and the law became a dead letter, and has since been repealed. A far greater evil is that of firing from boats, while sailing on their feeding grounds. After having been shot at in this way, I have seen them rise high in the air, and steer for the sea. I think it would be as well if the gunners generally would agree to abandon this unsportsmanlike practice.

"The Brant never dives for its food; but when wounded, it is not unusual for it to attempt escape by diving. As it seldom passes thirty or forty yards under water, it is generally secured. With the lovers of water-fowl the Brant is highly esteemed. Even the

adult birds are tender and jucy, and free from a fishy flavour, but at times, from the nature of its food, its flesh acquires a sedgy taste. It is considered superior for the table late in the spring. The epicure well knows the merits of the 'May Brant.'

"In the plumage, there are no markings by which the sex can be distinguished. Many undertake to determine it by the white markings on the sides of the neck, supposing that character to be more fully developed on the neck of the male; but this cannot be depended upon. I have frequently selected them by this supposed distinction, and on dissection the male and female organs have appeared without reference to such character.

"Their unwillingness to give up their wandering habits, makes it difficult to domesticate them. I have frequently tried it with young birds, having taken the precaution to cut off a joint from one of their wings, thus rendering them incapable of flying; still they would wander to the creeks that lead to the bay, and doubtless have fallen easy game to some passing sportsman. With a good deal of attention, particularly when associated with Canada Geese that have been domesticated, its native propensities are more easily subdued; but in the domestic state they have never been known to breed.

"The average weight of the Brent is four pounds. The adult can be distinguished to a certainty from the young, by its wings—which are entirely black, while those of the latter are broadly tipped with white. As soon as the ice begins to form in our bays it retires southward. Returning in April, it continues it visit until late in May, when they assemble at the 'great nursery' at the North."—*Giraud's Birds of Long Island.*

"The Brent, or as it is usually written, Brant, is a bird well known on both continents, and celebrated in former times, throughout Europe, for the singularity of its origin, and the transformations it was supposed to

undergo previous to its complete organization. Its first appearance was said to be in the form of a barnacle-shell adhering to old water-soaked logs, trees, and other pieces of wood taken from the sea. Of this Goose-bearing tree, Gerard in his Herbal, published in 1597, has given a formal account, and seems to have reserved it for the conclusion of his work, as being the most wonderful of all he had to describe. The honest naturalist, however, though his belief was fixed, acknowledges that his own personal information was derived from certain shells which adhered to a rotten tree. That he dragged it out of the sea between Dover and Romney in England, in some of which he found living things without form or shape; in others, which were nearer come to ripeness, living things 'that were very naked, in shape like a birde; in others the birdes covered with soft downe, the shell half open, and the birde ready to fall out, which, no doubt, were the foules called Barnacles.' Ridiculous and chimerical as this notion was, it had many advocates, and was at that time as generally believed, and with about as much reason too, as the annual submersion of the swallows, so tenaciously insisted on by some of our philosophers, and which, like the former absurdity, will in its turn disappear before the penetrating radiance and calm investigation of truth.

"The Brent and Barnacle Goose, though generally reckoned two different species, I conceive to be the same. Among those large flocks that arrive on our coast about the beginning of October, individuals frequently occur corresponding in their markings with that called the Barnacle of Europe, that is, in being the upper parts lighter and the front cheeks and chin whitish. These appear evidently a variety of the Brent, probably young birds. What strengthens this last opinion is the fact, that none of them are found so marked on their return northward in the spring. The Brent is expected at Egg Harbour, on the coast of New Jersey, about the first of October, and has been some-

times seen as early as the twentieth of September. The first flocks generally remain in the bay a few days, and then pass on to the south. On recommencing their journey, they collect in very large bodies, and making an extensive spiral course of some miles in diameter, rise to a great height in the air and then steer for the sea, over which they uniformly travel, often making wide circles to avoid passing over a projecting point of land. In these aërial routes, they have been met with many leagues from shore, travelling the whole night. Their line of march very much resembles that of the Canada Goose, with this exception, that frequently three or four are crowded together in the front, as if striving for precedency. Flocks continue to arrive from the north, and many remain in the bay till December, or until the weather becomes very severe, when these also move off southwardly. During their stay they feed on the bars at low water, seldom or never in the marshes; their principal food being a remarkably long and broad-leaved marine plant of a bright-green colour, which adheres to stones, and is called by the country people 'sea-cabbage;' the leaves of this are sometimes eight or ten inches broad by two or three feet in length; they also eat small shell-fish. They never dive, but wade about, feeding at low water. During the time of high water, they float in the bay in long lines, particularly in calm weather. Their voice is hoarse and howling, and, when some hundreds are screaming together, reminds one of a pack of hounds in full cry. They often quarrel among themselves, and with the Ducks, driving the latter off their feeding-ground. Though it never dives in search of food, yet when wing-broke, the Brent will go one hundred yards under water at a stride, and is considered, under such circumstances, one of the most difficult birds to kill.

"About the 15th or 20th of May they reappear on their way north, but seldom stop long unless driven in by tempestuous weather. The breeding-place of the Brent is supposed to be very far to the north. They

are common at Hudson's Bay, very numerous in winter on the coast of Holland and Ireland, and called in Shetland Harra-Geese, from their frequenting the sand of that name; they also visit the coast of England. Buffon relates that in the severe winters of 1740 and 1765, during the prevalence of a strong north wind, the Brent visited the coast of Picardy in France, in prodigious numbers, and committed great depredations on the corn, tearing it up by the roots, trampling and devouring it, and notwithstanding the exertions of the inhabitants, who were constantly employed in destroying them, they continued in great force until a change of weather carried them off."—*Wilson's American Ornithology.*

THE WHITE-FRONTED GOOSE. — *Anser Albifrons; Bonap. Syn. Anser Albifrons, Laughing Goose; Sw. & Rich. White-fronted Goose; Nutt. Man.*

"*Specific Character.*—Head and neck grayish-brown; at the base of the upper mandible, a white band. Adult with the bill carmine-red, with the unguis white; head and neck grayish-brown; a white band, margined behind with blackish-brown, on the anterior part of the forehead along the bill; general colour of back, deep-gray, the feathers of its fore part broadly tipped with grayish-brown—the rest with grayish-white; hind part of back deep-gray; wings grayish-brown; toward the edge, ash-gray—as are the primary coverts, and outer webs of the primaries; the rest of the primaries and secondaries, grayish-black, the latter with a narrow edge of grayish-white—the former edged and tipped with white; breast, abdomen, lower tail coverts, sides of rump, and upper tail coverts, white; the breasts and sides patched with brownish-black—on the latter intermixed with grayish-brown feathers; tail rounded, feet orange, claws white; length twenty-seven and a half inches; wing, fourteen and a half inches.

"On the coast of Long Island this Goose is exceed-

ingly rare. The cabinet of the Lyceum of Natural History, New York, contain a specimen that was shot at Babylon. According to Mr. Audubon, 'it passes through the interior of the southern and western States during winter, as well as along the coast from Massachusetts to Texas; and is said to pass through the interior of the fur countries in large flocks to its breeding places, which are the woody districts to the north of the seventy-seventh parallel, and also the islands of the Arctic Sea.'"—*Giraud's Birds of Long Island.*

THE SNOW GOOSE—*Anas Hyperboreus; Wils. Anser Hyperboreus; Bonap. Snow Goose; Nuttall. Anser Hyperboreus, Snow Goose; Sw. & Rich.*

"*Specific Character.*—Bill and feet carmine; plumage pure white; fore part of head tinged with yellowish-red; primaries brownish-gray—toward the end, blackish-brown. Length thirty-one inches and three-quarters, wing fifteen. Female measures about six inches less. Young with the head and upper part of the neck and wing coverts, grayish-white; lower part of neck, fore part of back, fore part of breast and sides, blackish-gray; hind part of back, and upper tail coverts, ash-gray; abdomen grayish-white—secondaries margined with the same; bill flesh-colour.

"With us the occurrence of this bird is not frequent. Occasionally the young are seen exposed for sale in the New-York markets, though rarely the adult. In some seasons, small parties are seen on the South Bay, and now and then stragglers are seen flying in company with the Canada Geese. The whiteness of their plumage renders them very conspicuous, and when opportunity offers, are always singled out by the gunners.

"'The Snow Goose breeds in the barren grounds of Arctic America in great numbers. It feeds on rushes and insects, and in autumn on berries. When well fed, it is a very excellent bird—far superior to the Canada Goose, both in juiciness and flavour.

" 'The Snow Geese make their appearance in spring, a few days later than the Canada Geese, and pass in large flocks both through the interior and on the sea-coast.'"—*Giraud's Birds of Long Island.*

SEA DUCKS.

CANVASS-BACK DUCK—*Canvass-backed Duck, Anas Valisneria; Wils. Amer. Orn. Fuligula Valisneria; Bonap. Syn. Fuligula Valisneria, Canvass-back Duck; Sw. & Rich. Canvass-backed Duck; Nutt. Man.*

" *Specific Character.*—Bill black, the length about three inches, and very high at the base; fore part of the head and the throat dusky; irides deep red; breast brownish-black. Adult male with the forehead, loral space, throat and upper part of the head dusky; sides of the head, neck all round for nearly the entire length, reddish-chesnut; lower neck, fore part of the breast and back black, rest of the back white, closely marked with undulating lines of black; rump and upper tail coverts blackish; wing coverts gray, speckled with blackish; primaries and secondaries light slate colour. Tail short, the feathers pointed; lower part of the breast and abdomen white; flanks same colour, finely pencilled with dusky; lower tail-coverts blackish-brown, intermixed with white. Length twenty-two inches, wing nine and a quarter.

" Female, upper parts grayish-brown; neck, sides, and abdomen the same; upper part of the breast brown; belly white, pencilled with blackish; rather smaller than the male, with the crown blackish-brown.

" This species is not found in any part of Europe. Its richly flavoured flesh is admitted by all to be superior to any other of this genus. The Canvass-back Duck returns from its breeding place at the North, about the first of November, and during winter extends to the southern portion of the sea-coast of the United States. It is not unfrequently shot in the eastern part

of the Great South Bay, and I have known it to be captured in Long Island Sound. The majority, however, congregate on the Potomac and Delaware rivers. Those procured in the vicinity of New York are inferior to those obtained on the tributaries of the Chesapeake, owing to the difference in the quality of its food. The Canvass-back feeds chiefly on the *Zostera valisneria*,—commonly termed 'tape or eel-grass,' and by some improperly called wild celery—which takes its growth in brackish water. We do not wish this plant to be confounded with the 'tape or eel-grass,' *Zostera marina*, which furnishes food for the Brent Goose. When its favourite food cannot be obtained, it feeds on various marine plants and small shell-fish that abound on our coast, which furnish an abundant supply of food to many species of inferior note. When the *valisneria* cannot be obtained, its flesh loses, in a great measure, that delicacy of flavour, for which it is so justly celebrated. Like most other species, it is in the best condition for the table during the latter part of autumn.

"Miller's Island, about fifteen miles from Baltimore, is a famous place for shooting Canvass-backs, as well as other species of Ducks. 'Points' on this Island, and others in the vicinity, are rented for large sums by parties who practise Duck-shooting. In this section 'decoys' are not used, and the unsportsmanlike manner of sailing after and harassing them on their feeding grounds, is not resorted to."—*Giraud's Birds of Long Island.*

"This celebrated American species, as far as can be judged from the best figures and descriptions of foreign birds, is altogether unknown in Europe. It approaches nearest to the Pochard of England—*Anas ferina*—but differs from that bird in being superior in size and weight, in the greater magnitude of its bill, and the general whiteness of its plumage. A short comparison of the two will elucidate this point. The Canvass-back measures two feet in length by three feet in extent, and when in the best order, weighs three pounds and over.

The Pochard, according to Latham and Bewick, measures nineteen inches in length, and thirty in extent, and weighs one pound twelve or thirteen ounces. The latter writer says, of the Pochard: 'The plumage above and below is wholly covered with prettily-freckled, slender, dusky, threads, disposed transversely in close-set zigzag lines, on a pale ground, more or less shaded off with ash, a description much more applicable to the bird figured beside it, the Red-head, and which very probably is the species meant. In the figure of the Pochard, given by Mr. Bewick, who is generally correct, the bill agrees very well with that of our Red-head, but scarcely half the size and thickness of that of the Canvass-back, and the figure in the *planches enluminées*, corresponds in that respect with Bewick's. In short, both of those writers are egregiously erroneous in their figures and descriptions, or the present Duck was unknown to them. Considering the latter supposition the more probable of the two, I have designated this as a new species, and shall proceed to give some particulars of its history.

"The Canvass-back Duck arrives in the United States from the North about the middle of October; a few descend to the Hudson and Delaware, but the great body of these birds resort to the numerous rivers belonging to, and in the neighbourhood of, Chesapeake Bay, particularly the Susquehanna, the Patapsco, Potomac, and James Rivers, which appear to be the general winter rendezvous. Beyond, to the South, I can find no certain accounts of them. At the Susquehanna they are called Canvass-backs; on the Potomac, White-backs; and on James River, Shell-drakes. They are seldom found at a great distance up any of these rivers, or even in the salt water bay, but in that particular part of tide-water where a certain grass-like plant grows, on the roots of which they feed. This plant, which is said to be a species of *valisneria*, grows on fresh water shoals of from seven to nine feet (but never where these are occasionally dry), in long, narrow, grass-like

blades of four or five feet in length; the root is white, and has some resemblance to small celery. This grass is in many places so thick that a boat can with difficulty be rowed through it, it so impedes the oars. The shores are lined with large quantities of it, torn up by the Ducks, and drifted on by the winds, lying like hay in winrows. Wherever this plant grows in abundance, the Canvass-backs may be expected either to pay it occasional visits, or to make their regular residence during the winter. It occurs in some parts of the Hudson, in the Delaware, near Gloucester, a few miles below Philadelphia, and in most of the rivers that fall into the Chesapeake, to each of which particular places the Ducks resort, while in waters unfavoured with this nutritive plant, they are altogether unknown. On the first arrival of these birds in the Susquehanna, near Havre-de-Grace, they are generally lean, but such is the abundance of their favourite food, that towards the beginning of November they are in pretty good order. They are excellent divers, and swim with great speed and agility. They sometimes assemble in such multitudes as to cover several acres of the river, and when they rise suddenly, produce a noise resembling thunder. They float about these shoals, diving and tearing up the grass by the roots, which is the only part they eat. They are extremely shy, and can rarely be approached unless by stratagem. When wounded in the wing, they dive to such prodigious distances, and with such rapidity, continuing it so perseveringly, and with such cunning and active vigour, as almost always to render the pursuit hopeless. From the great demand of these Ducks, and the high price they uniformly bring in market, various modes are practised to get within gunshot of them. The most successful way is said to be decoying them to the shore by means of a dog, while the gunner lies closely concealed in a proper situation. The dogs, if properly trained, play backways and forwards along the margin of the water, and the Ducks observing his manœuvres, enticed perhaps by curiosity,

gradually approach the shore, until they are sometimes within twenty or thirty yards of the spot where the gunner lies concealed, from which he rakes them, first on the water and then as they rise. This method is called, *toling them in.* If the Ducks seem difficult to decoy, any glaring object, such as a red handkerchief, is fixed round the dog's middle, or to his tail, and this rarely fails to attract them. Sometimes by moonlight the sportsman directs his skiff towards a flock, whose position he had previously ascertained, keeping them within the projecting shadow of some wood-bank or headland, and paddles along so silently and imperceptibly as often to approach within fifteen or twenty yards of a flock of many thousands, among which he generally makes a great slaughter. Many other stratagems are practised, and indeed every plan that the ingenuity of the experienced sportsman can suggest, to approach within gun-shot of those birds; but of all the modes pursued, none intimidates them so much as shooting them by night, and they soon abandon the place where they have been repeatedly shot at. During the day they are dispersed about, but towards evening collect in large flocks, to come into the mouths of creeks, where they often ride as at anchor, with head under their wing, asleep, there being always sentinels awake, ready to raise an alarm on the least appearance of danger. Even when feeding and diving in small parties, the whole never go down at one time, but some are left above on the look-out. When winter sets in early, and the river is frosty, the Canvass-backs retreat to its confluence with the bay, occasionally frequenting air-holes in the ice, which are sometimes made for the purpose immediately above their favourite grass, to entice them within gun-shot of the hut or bark, which is usually fixed at a proper distance, and where the gunner lies concealed, ready to take advantage of their distress. A Mr. Hill, who lives near James River, at a place called Herring Creek, informs me that one severe winter he and another person broke a hole in the ice,

about twenty or forty feet, immediately over a shoal of grass, and took their stand on the shore in a hut of brush, each having three guns well loaded with large shot. The Ducks, which were flying up and down the river in great extremity, soon crowded to this place, so that the whole open space was not only covered with them, but vast numbers stood upon the ice around it. They had three firings, both at once, and picked up eighty-eight Canvass-backs, and might have collected more, had they been able to get to the extremity of the ice after the wounded ones. In the severe winter of 1779–80, the grass, on the roots of which these birds feed, was almost wholly destroyed in James River. In the month of January, the wind continued to blow from W.N.W. for twenty-one days, which caused such low tides in the river, that the grass froze to the ice everywhere, and a thaw coming on suddenly, the whole was raised by the roots, and carried off by the freshes. The next winter a few of these Ducks were seen, but they soon went away again, and for many years after they continued to be scarce; and even to the present day, in the opinion of my informant, have never been so plenty as before.

"The Canvass-back, in the rich, juicy tenderness of its flesh, and its delicacy of flavour, stands unrivalled by the whole of its tribe in this or perhaps any other quarter of the world. Those killed in the waters of the Chesapeake are generally esteemed superior to all others, doubtless from the greater abundance of their favourite food which these rivers produce. At all our public dinners, hotels, and particular entertainments, the Canvass-backs are universal favourites. They not only grace but dignify the table, and the very name conveys to the imagination of the eager epicure the most comfortable and exhilarating ideas. Hence on such occasions, it has not been uncommon to pay from one to three dollars a pair for these Ducks, and, indeed, at such, if they can, they must be had, whatever the price.

"The Canvass-backs will feed readily on grain, especially wheat, and may be decoyed to particular places by baiting them with that grain for several successive days. Some few years since, a vessel loaded with wheat, was wrecked near the entrance of Great Egg Harbour, in the autumn, and went to pieces. The wheat floated out in vast quantities, and the whole surface of the bay was, in a few days, covered with Ducks, of a kind altogether new to the people of that quarter. The gunners of the neighbourhood collected in boats in every direction, shooting them, and so successful were they, that, as Mr. Beasly informs me, two hundred and forty were killed in one day, and sold among the neighbours at twelve-and-a-half cents a-piece, without the feathers. The wounded ones were generally abandoned as being too difficult to be come up with. They continued about for three weeks, and during a greater part of that time, a continued cannonading was heard from every quarter. The gunners called them Sea Ducks. They were all Canvass-backs, at that time on their way to the North, when this floating feast attracted their attention, and for a while arrested them in their course. A pair of these very ducks I myself bought in the Philadelphia market at the time, from an Egg Harbour gunner, and never met with their superior either in weight or excellence of flesh. When it was known among these people the loss they had sustained, in selling for twenty-five cents what would have brought them from a dollar to a dollar and a half per pair, universal surprise and regret were naturally enough excited."—*Wilson's American Ornithology.*

RED-HEADED DUCK—*Red-headed Duck, Anas Ferina; Wils. Fuligula Ferina; Sw. & Rich. Red-headed Duck, or Pochard; Nuttall. Red-headed Duck, Fuligula Ferina; Audubon.*

"*Specific Character.*—Bill bluish, toward the end black, and about two inches and a quarter long; irides

yellowish-red. Adult male with the head, which is rather large, and the upper part of the neck all round, dark reddish-chestnut, brightest on the hind neck; lower part of the neck, extending on the back and upper part of the breast, black; abdomen white, darker toward the vent, where it is barred with undulating lines of dusky; flanks gray, closely barred with black, scapulars the same; primaries brownish-gray; secondaries lighter; back grayish-brown, barred with fine lines of white; rump and upper tail coverts blackish-brown; tail feathers grayish-brown, lighter at the base; lower tail coverts brownish-black, rather lighter than the upper. Length twenty inches, wing nine and a half. Female about two inches smaller, with the head, neck, breast, and general colour of the upper parts brown, darker on the upper part of the head, lighter on the back; bill, legs, and feet, similar to those of the male.

"With us the Red-headed Duck is not as common as many other species, and is seldom seen in numbers west of Babylon, being chiefly confined to the eastern part of the South Bay, where it is sometimes seen in company with the Canvass-back, feeding on the stems of the same plant, the latter preferring the roots, being more tender and juicy, which imparts to its flesh a delicate flavour. The Red-headed Duck is also excellent, commands a high price in our markets, and is frequentlv sold to the inexperienced as Canvass-back, which it so closely resembles that the deception is easily practised upon those who have never compared the species. It is readily identified by the difference in the colour of its eyes, as well as by the form of its bill.

"At Egg Harbour, the Red-headed Ducks are more common than they are with us, but not so plentiful as on the Chesapeake, where the majority assemble during winter.

"Frequent attempts have been made to domesticate these birds, but only in one instance do I know of its having been attended with success. This was with an individual in the possession of Edmund Powell, of Westbury, L. I., who has induced it to become com-

pletely reconciled to its new home, as though it had never known any other course of life. This gentleman seems to have a peculiar faculty for subduing the wild propensities of birds, of which he has a greater variety domesticated by himself than I have seen in any other part of the country. It is not only a great embellishment to his residence, but at times the means of affording convenient shooting, as they always invite straggling parties, when crossing the land, to stop and share with them; the invitation, given with so much earnestness, and being hailed in their own language, they seldom fail to alight on the pond, without in the least suspecting the treachery of their kinsman. The Red-headed Duck arrives with us usually about the first of November—early in March it leaves for the North, where it breeds."—*Giraud's Birds of Long Island.*

SCAUP DUCK—*Anas Marila; Wils. Amer. Orn. Fuligula Marila, Scaup Duck; Sw. & Rich. Scaup Duck; Nutt. Man.*—Vulgo, *Broadbill.*

"*Specific Character.*—The head and neck all round, with the fore part of the breast and the fore part of the back, black; the sides of the head and the sides and hind part of the neck dark-green, reflecting purple; length of bill, when measured along the gap, two inches and five-sixteenths; length of tarsi one inch and three-eighths; length from the point of the bill to the end of the tail, nineteen inches, wing eight inches and five-eighths; a broad white band crossing the secondaries, and continues on the inner primaries. Adult male with the forehead, crown, throat and upper part of the fore-neck brownish-black; sides of the head, neck, and hind-neck dark-green; lower portion of the neck all round, with the upper part of the breast purplish-black; rest of the lower parts white, undulated with black towards the vent; under tail coverts blackish-brown; tail short, dark-brown, margined and tipped with lighter brown; upper tail coverts and rump blackish-brown,

middle of the back undulated with black and white, fore part black; wings brown, darker at the base and tips, speculum white, formed by the band crossing the secondaries and inner primaries; scapulars and inner secondaries undulated with the black and white; secondary coverts blackish-brown, undulated with white. Female with a broad patch of white on the forehead; head, neck, and fore part of the breast, umber-brown; upper parts blackish-brown; abdomen and lower portion of breast white; scapulars faintly marked with white.

"This common Duck is more generally known to our gunners by the name of 'Broad-bill' or 'Blue-bill.' According to Willoughby, it takes its name from a certain small kind of shell-fish on which it feeds.—*Wilson.* It is met with along the whole extent of the Atlantic coast, and is a regular visitor along our western lakes. It arrives among us from the 10th to the 20th of October, associates in large flocks, and on its first appearance is easily decoyed, but after having been frequently shot at becomes more shy. In stormy weather it takes shelter in the caves, and is frequently decoyed within gun-shot from the shore by having a dog trained for the purpose of swimming between it and the shore, as also by moving a red handkerchief every few seconds, keeping your person concealed. This manœuvre either charms or irritates it—I am inclined to think the latter, from the impetuous manner in which it approaches. The scene is truly ludicrous. I have tried this method with other species without success. It remains with us in the winter until the severity of the weather compels it to leave for a better supply of food. When passing over frozen bays, I have killed it at air-openings. When wounded, it avoids pursuit by diving, and is famous for skulking under banks. It is no particular advantage to have a large flock come up to the decoys, for the instant you rise to fire, they scatter in all directions, so that it is difficult to get over two in range; when a flock swims up to you, as it occasionally happens, of course greater

havoc is made. It passes the night on the flats in large flocks, seldom or never roosting on the marshes or meadows, and is very quick in discovering the best feeding-grounds. In passing through the narrow 'leads,'—as the gunners term the natural creeks and channels that form those beautiful islands in our wide bays—to its favourite feeding-grounds, it is easily killed without decoys. It returns to us early in the spring, and remains until the mild weather invites its vernal flight. When in good condition, its flesh by many is esteemed. In flying, it seldom makes any other noise than that produced by the action of its wings; but in calm weather, when swimming leisurely about, it gives utterance to a quick rattling or rolling sound. Its migratory flight is high and rapid. In winter, it is common on the Ohio and Mississippi Rivers, and their tributaries. In the Chesapeake Bay, where it is abundant, it is called 'Black-headed,' in Virginia, 'Raft Duck.'"—*Giraud's Birds of Long Island.*

Lesser Scaup Duck—*Fuligula Marila; Fuligula Minor; Giraud.*

"*Specific Character.*—Length of bill along the gap, two inches; of tarsi one inch and an eighth; from the point of the bill to the end of the tail feathers seventeen inches; wing eight inches. Adult with the feathers on the head longer, more tufted, than *F. Marila;* the head and neck more deeply tinged with purple; the white markings on the wings confined to the secondaries, while in *F. Marila* the white band spreads over the primaries.

"The female is smaller than the male, and bears the same resemblance in markings to the male as the female of *F. Marila* does to the male of that species. The white band on the wings as pointed out, is at all times the best specific character.

"This bird is very closely allied to the preceding, so nearly that it has been overlooked and confounded with

that species by our most eminent Ornithologists. On a close investigation, we find well-defined specific characters in markings, &c., as well as inferiority in point of size. The Lesser Scaup Duck is well known to the bay gunners by the name of 'Creek Broad-bill,' from its habit of frequenting the small streams, while the Scaup Duck—*F. Marila*—is usually observed on the open bays. It is a very abundant species, and during autumn and the early part of spring, is quite common along the middle Atlantic districts, as well as on the streams in the interior. Its choice of food, migrations and breeding range, are similar to the former."—*Giraud's Birds of Long Island.*

RING-NECKED, OR TUFTED DUCK—*Fuligula Rufitorques; Bonap. Tufted Duck, Anas Fuligula; Wils. Ring-necked Duck, Anas (Fuligula) Rufitorques; Sw. & Rich. Ring-necked Duck, Fuligula Rufitorques; Nutt. Ring-necked Duck, Fuligula Rufitorques; Aud.*

"*Specific Character.*—Head tufted; bill about two inches long, very high at the base, the ridge at the base unusually broad, at the base margined with a rather broad band of yellowish-green; a broader band of the same colour between the nostrils and the tip; the remaining part of the bill dark slate-colour; speculum or wing spot bluish-gray. Adult male with the plumage of the head and upper part of the neck black, with purple reflections; at the base of the lower mandible, a triangular white spot; the middle of the neck encircled with chestnut; the upper part of the breast black; abdomen white, spotted with brown and tinged with yellow; flanks ash-gray, undulated with lines of white and dusky; vent and lower part of the abdomen dark-brown, undulated with faint lines of white; lower tail coverts blackish-brown; upper tail coverts darker; back blackish-brown; primaries the same colour; scapulars and lesser coverts greenish-black; outer secondaries, outer webs, light slate colour, tipped with white; inner webs brown, inner secondaries dark-green; secondary coverts brown. Length 18 inches, wing $7\frac{3}{4}$.

"Female with a band of white on the forehead; head and neck brown; larger portion of the breast and abdomen white; the sides of the body brown. About two inches shorter than the male.

"This bird in general markings is not unlike the Scaup Duck, but it can at all times be readily distinguished by the slate-coloured markings on the wings. By our gunners generally it is considered a hybrid, and familiar to them by the name of 'Bastard Broad-bill.' Along the sea-coast it is not very abundant; still a few are observed almost every spring and autumn along the south shore of Long Island, and at Egg Harbour. On the streams of the interior it is quite common during winter. I have met with it on various parts of the Ohio, and on the Mississippi as far as New Orleans. It associates in small parties, and is usually observed flying but a short distance above the water.

"The largest flock I ever met with, was from nine to twelve—those I saw at the mouth of the river Licking; but from my observations, they are not so plentiful in the vicinity of Cincinnati, as farther down the Ohio River."—*Giraud's Birds of Long Island.*

THE RING-NECKED DUCK.—*Fuligula Rufitorques; Bonap. Tufted Duck, Anas Fuligula; Wilson. Am. Orn.*

"Male 18.28. Female 16.

"Abundant on the Ohio, during the autumn, winter, and early spring. Rather rare along the coasts of the Middle Atlantic Districts.

"Adult male:

"Bill about the same length as the head, rather deeper than broad at the base, depressed and enlarged toward the end, the frontal angle acute. Upper mandible, with the dorsal line at first sloping, then concave, along the unguis decurved, the ridge broad and flat at the base, then broadly convex, the sides nearly flat and perpendicular at the base, convex and sloping toward

the end, the edges soft, with about forty-five internal lamellæ; unguis obovate, curved. Nostrils sub-basal, lateral, rather small, oval, pervious. Lower mandible flat, with the angle very long, and rather narrow, the dorsal line very short, slightly convex, the edges with about sixty-five lamellæ, and smaller intermediate ones above.

"Head of moderate size, neck rather long and slender, body full and depressed, wings rather small. Feet very short, strong, placed rather far behind; tarsus very short, compressed, at its lower part anteriorly with two series of scutella, the rest covered with reticulated angular scales. Toes scutellate above, first very small, free, with a broad membrane beneath, fourth longest, third scarcely shorter; claws small, curved, compressed, obtuse, the hind one smaller, more curved, and acute; that of the third toe with an inner sharp edge.

"Plumage dense, soft, blended, rather glossy. Feathers of the middle of the head, and upper part of the hind-neck, very narrow and a little elongated; of the rest of the head, and upper part of the neck very short; of the back and lower parts in general broad and rounded. Wings of moderate length, narrow, acute; primaries curved, strong, tapering, first longest, second very little shorter; secondaries broad, rounded, short, the inner long and tapering. Tail very short, rather broad, much rounded, of sixteen rounded feathers.

"Bill black, with a basal band; the edges of both mandibles, and a band across the upper, toward the end, pale blue. Iris yellow. Legs grayish-blue, the webs brownish-black; the head and upper part of the neck greenish-black, with purple reflections. A brownish-red collar, broader before, on the middle of the neck; its lower part all round, as well as the back scapulars, smaller wing coverts, and posterior part of abdomen, brownish-black; inner secondaries the same colour, outer bluish-gray on the outer web, light-brown on the inner, as are the primaries, of which the outer webs and tips are dark-brown. Tail brownish-gray; chin white;

breast grayish-white; sides and fore part of abdomen grayish-white, minutely undulated with grayish-brown.

"Length to end of tail, 18 inches; to end of wings, 16; extent of wings, 28; wing from flexure, $7\frac{3}{4}$; tail, $2\frac{1}{2}$; bill along the back, $6\frac{1}{2}$—along the edge of the lower mandible, $1\frac{1}{16}$; tarsus, $1\frac{4}{10}$; middle toe, $2\frac{3}{10}$—its claw, $\frac{4}{10}$.

"Adult female:

"The female has the neck umber brown; the upper part of the head darker, the back blackish-brown, the speculum bluish-gray, as in the male, the breast brownish-white, the loral spaces and chin pale-brown, the abdomen umber brown.

"Length 16 inches.

"The Tufted Duck of Europe, *Fuligula cristata,* is very nearly allied to this species."—*Audubon's Birds of America.*

By Wilson, in his American Ornithology, this bird has been assumed as identical with the Tufted Duck of Europe, and is said to be common to both continents, which I conceive to be erroneous.

It is common on all the western waters, but is rare, though not as much so but that it is perfectly well known, along the Atlantic coasts, from Massachusetts to Louisiana.

THE RUDDY DUCK—*Fuligula Rubida; Bonap. Anas Rubidus; Wilson.*—Vulgo, *Salt Water Teal.*

"Male $14\frac{3}{4}$, $21\frac{1}{2}$.

"Adult male in summer:

"Bill as long as the head, a little higher than broad at the base, depressed and widened toward the end, which is rounded. Dorsal outline straight, and declinate to the nostrils, then direct and slightly concave, the sides sloping and concave at the base, broadly convex toward the end, the edges soft without, about forty short erect lamellæ internally on each side, the unguis

linear oblong suddenly decurved and directed backward, its lower part transversely expanded and serrulate, nostrils in an oblong depression covered with skin, medial rather small, linear-oblong, pervious; lower mandible flattened, a little recurved, its angle very long and narrow, the laminæ about a hundred and forty, extremely small, the unguis oblong.

"Head rather large, oblong. Eyes of moderate size. Neck short and thick. Body full, much depressed. Legs short, and placed rather far behind; tibia bare for a short space; tarsus very short, compressed, with an anterior series of small scutella, an outer short series going to the fourth toe, the rest reticulated. Hind toe very small, with a free interior web; anterior toes very slender, the middle toe double the length of the tarsus, the outer almost as long, the inner considerably shorter, and having a broad lobed margin, the webs reticulated. Claws rather small, slender, compressed, slightly arched, acute.

"Plumage dense, blended, on the upper parts very soft; on the fore part of the head stiffish; on the lower parts with a silky gloss, and stiff, having the extremities broad, and the barbs sharp and pointed; primaries tapering, the first longest, obliquely rounded. Tail short, much graduated, of eighteen stiff, narrow feathers, of which the shaft is very strong, and runs out in a flattened concave point.

"Bill and edges of eyelids grayish-blue. Iris hazel. Feet dull grayish-blue, webs inclining to dusky; claws grayish-brown. Upper part of the head and nape, deep bluish-black, that colour running to a point about the middle of the neck; a large white patch on each side of the head, from the bill to behind the ear, narrowed on the throat. Neck all round, and all the upper parts, as well as the sides of the rump, rich glossy brownish-red, or chestnut; the lower parts grayish-white, tinged with brown, and marked with transverse interrupted bars of dusky. Wing coverts, quills, and tail-feathers, blackish-brown.

"Length to end of tail, 14¾ inches; to end of wings, 12½; to end of claws, 15; extent of wings, 21½; tail, 3½; bill, along the ridge, 1⅝. Weight, 1¾ lbs."—*Audubon's Birds of America.*

Mr. Audubon further speaks of this beautiful and showy Duck in the following terms, which I quote as presenting so remarkable a discrepancy with Wilson's statement, at a more remote period, that we must suppose that this species has become, as the case with many other birds of this and other genera, more frequent in this region, of late. Mr. Giraud, in his "Birds of Long Island," speaks of it as not very rare, though not a common species, and says that it is known by the gunners as the "Salt Water Teal."

"The Ruddy Duck," says Mr. Audubon, "is by no means a rare species in the United States. Indeed I consider it quite abundant, especially in the winter months, in the peninsula of Florida, where I have shot upwards of forty in one morning. In our eastern districts they make their appearance early in September, and are then plentiful from Eastport to Boston, in the markets of which, as well as of New York, I have seen them. On the Ohio and Mississippi, they arrive about the same time; and I have no doubt they will be found breeding in all our western territories, as soon as attention is paid to such matters as the searching for nests, with the view of promoting science, or of domesticating birds, which might prove advantageous to the husbandman."

It is curious to observe how widely different is the language of the pioneer of American Ornithology, the eloquent and exact Wilson.

"This very rare Duck was shot, some years ago, on the River Delaware, and appears to be an entire new species. It, and the female that accompanies it, and which was killed in the same river, are the only individuals of their kind I have met with. They are both

preserved in the superb museum of my much respected friend, Mr. Peale, of this city.

"On comparing this Duck with the description given by Latham of the Jamaica Shoveller, I was at first inclined to believe I had found out the species; but a more careful examination of both satisfied me that they cannot be the same, as the present differs considerably in colour; and, besides, has some peculiarities which the eye of that acute ornithologist could not possibly have overlooked, in his examination of the species said to have been received by him from Jamaica. Wherever the general residence of this species may be, in this part of the world, at least, it is extremely rare, since, among the many thousands of Ducks brought to our markets during winter, I have never heard of a single individual of the present kind having been found among them.

"The Ruddy Duck is fifteen inches and a half in length, and twenty-two inches in extent; the bill is broad at the tip, the under mandible much narrower, and both of a rich light-blue; nostrils, small, placed in the middle of the bill; cheeks and chin, white; front, crown, and back part of the neck, down nearly to the back, black; rest of the neck, whole back, scapulars, flanks, and tail coverts, deep reddish-brown, the colour of bright mahogany; wings, plain pale-drab, darkest at the points; tail black, greatly tapering, containing eighteen narrow-pointed feathers; the plumage of the breast and upper part of the neck is of a remarkable kind, being dusky-olive at bottom, ending in hard bristly points, of a silvery-gray, very much resembling the hair of some kinds of seal-skins; all these are thickly marked with transverse, curving lines of deep-brown; belly and vent silver-gray, thickly crossed with dusky olive; under tail coverts white; legs and feet ash-coloured.

"*Female Ruddy Duck.*—This is nearly of the same size as the male; the front, lores and crown deep blackish-brown; bill as in the male, very broad at the

extremity and largely toothed on the sides, of the same rich blue; cheeks a dull cream; neck plain dull drab, sprinkled about the auriculars with blackish; lower part of the neck and breast variegated with gray, ash, and reddish-brown; the reddish dies off towards the belly, leaving this last of a dull white, shaded with dusky ash; wings as in the male; tale brown; scapulars dusky brown, thickly sprinkled with whitish, giving them a gray appearance; legs ash.

"A peculiar character of this species is its tapering, sharp-pointed tail, the feathers of which are very narrow; the body is short; the bill very nearly as broad as some of those called Shovellers; the lower mandible much narrower than the upper."—*Wilson's American Ornithology.*

This bird I have never myself been so fortunate as to fall in with, as it is, more particularly in these regions, a sea Duck, which I am less given to pursuing than the various species of upland game; and as it is shot more frequently to the eastward of Montauk Point and Boston Bay, than on the lagoons of Long Island or the Jersey shores, where only I have followed wild-fowl shooting.

THE PIED DUCK—*Fuligula Labrador.*—Vulgo, *Skunk-Duck.—Sand-Shoal Duck.*

This is a very much rarer species than the Duck last mentioned. Its range does not extend south of Chesapeake Bay. It ascends the Delaware River as high as Philadelphia, is met with in greater or less numbers every year along the coasts of New Jersey and Long Island, and frequents the shores of Massachusetts, Maine, and Nova Scotia, during the severest cold in winter. It is truly a marine bird, seldom entering rivers, unless forced by stress of weather to do so. Breeds in Labrador. Mr. Giraud, in his "Birds of Long Island," states, that a few are killed on that coast yearly, adding, "with us it is rather rare, chiefly in-

habiting the western side of the continent." In this, however, he differs from Mr. Audubon, who speaks of it as a purely northern and eastern fowl, "never seen in the interior." On Long Island it is called the "Skunk Duck," from some fancied similarity in its colours. Mr. Wilson thus describes it:—

"This is rather a scarce species on our coasts, and is never met with on fresh water lakes or rivers. It is called by some gunners the Sand-Shoal Duck, from its habit of frequenting sand-bars. Its principal food appears to be shell-fish, which it procures by diving. The flesh is dry, and partakes considerably of the nature of its food. It is only seen here during winter; most commonly early in the month of March, a few are observed in our market. Of their principal manners, place, or mode of beeding, nothing more is known. Latham observes, that a pair in the possession of Sir Joseph Banks, were brought from Labrador. Having myself had frequent opportunities of examining both sexes of these birds, I find that, like most others, they are subject, when young, to a progressive change of colour. The full-plumed male is as follows:—length twenty inches; extent twenty-nine inches; the base of the bill and edges of both mandibles for two-thirds of their length, are of a pale orange-colour; the rest black; towards the extremity, it widens a little in the manner of the Shovellers, the sides there having the singularity of being only a soft, loose, pendulous skin; irides dark-hazel; head and half of the neck white, marked along the crown to the hind head with a stripe of black; the plumage of the cheeks is of a peculiar bristly nature at the points, and round the neck passes a collar of black, which spreads over the back, rump, and tail coverts; below this collar the upper part of the breast is white, extending itself over the whole scapulars, wing coverts, and secondaries; the primaries, lower part of the breast, whole belly, and vent, are black; tail pointed, and of a blackish hoary colour; the fore part of legs and ridges of the toes, pale and

whitish-ash; hind part the same, bespattered with black; webs black; the edges of both mandibles are largely pectinated. In young birds, the whole of the white plumage is generally strongly tinged with a yellowish cream colour; in old males, these parts are pure white, with the exception sometimes of the bristly, pointed plumage of the cheeks, which retains its cream tint the longest, and with the skinny part of the bill, form two strong peculiarities of this species.

"The female measures nineteen inches in length, and twenty-seven in extent; bill exactly as in the male; sides of the front white; head, chin, and neck, ashy-gray; upper parts of the back and wings, brownish-slate; secondaries only white; tertials hoary; the white secondaries form a spot on the wing, bounded by the black primaries, and four hoary tertials edged with black; whole lower parts a dull-ash, skirted with brownish-white, or clay colour; legs and feet as in the male; the bill in both is marked from the nostrils backwards by a singular, heart-shaped outline.

"The windpipe of the male measures ten inches in length, and has four enlargements, viz., one immediately below the mouth, and another at the interval of an inch; it then bends largely down to the breast-bone, to which it adheres by two strong muscles, and has at that place a third expansion. It then becomes flattened, and before it separates into the lungs, has a fourth enlargement, much greater than any of the former, which is bony and round, puffing out from the left side. The intestines measured six feet; the stomach contained small clams and some glutinous matter; the liver was remarkably large."

THE VELVET DUCK—*Fuligula Fusca.*—Vulgo, *White-Winged Coot.*

This species is very abundant along the coasts of the Atlantic, from Georgia westward to Nova Scotia. It is a very indifferent bird, tough and fishy; but it is so

hard a bird to kill that its slaughter is considered a test of skill among fowl-shooters, and it is on that account somewhat eagerly pursued.

"This* and the preceding are frequently confounded together as one and the same species, by our gunners on the sea-coast. The former, however, differs in being of greater size; in having a broad band of white across the wing; a spot of the same under the eye; and in the structure of its bill. The habits of both are very much alike; they visit us only during the winter; feed entirely on shell-fish, which they procure by diving; and return to the northern regions early in spring to breed. They often associate with the Scoters, and are taken frequently in the same nets with them. Owing to the rank, fishy flavour of its flesh, it is seldom sought after by our sportsmen or gunners, and is very little esteemed.

"The Velvet Duck measures twenty-three inches in length, and two feet nine inches in extent, and weighs about three pounds; the bill is broad, a little elevated at the base, where it is black, the rest red, except the lower mandible, which is of a pale yellowish white; both are edged with black, and deeply toothed; irides, pale cream; under the eye is a small spot of white; general colour of the plumage brownish black, the secondaries excepted, which are white, forming a broad band across the wing; there are a few reflections of purple on the upper plumage; the legs are red on the outside, and deep yellow, sprinkled with blackish, on the inner sides; tail short and pointed.

"The female is very little less than the male; but differs considerably in its markings. The bill is dusky; forehead and cheeks white; under the eye dull brownish; behind that, a large oval spot of white; whole upper parts and neck dark brownish-drab; tips of the plumage lighter; secondaries white; wing quills deep brown; belly brownish-white; tail hoary brown; the throat is white, marked with dusky specks; legs and feet yellow.

* In Wilson's American Ornithology the American Scoter—*Fuligula Americana*, immediately precedes the notice of the Velvet Duck.

"Latham informs us, that this species is sometimes seen on the coast of England, but is not common there; that it inhabits Denmark and Russia, and in some parts of Siberia is very common. It is also found at Kamtschatka, where it is said to breed, going far inland to lay; the eggs are eight or ten, and white; the males depart, and leave the females to remain with the young until they are able to fly. In the River Ochotska they are so numerous that a party of natives, consisting of fifty or more, go off in boats, and drive these Ducks up the river before them, and, when the tide ebbs, fall on them at once, and knock them on the head with clubs, killing such numbers that each man has twenty or thirty for his share."

The mode of shooting this bird as practised on the south side of Long Island, is thus described by Mr. Giraud; his remark about the error in overloading is perfectly true, and I have alluded to the same vicious habit of using unduly large shot, in my remarks on upland shooting.

"When migrating, it flies high, performing its long journey from its breeding-place at the North in silence. It arrives among us about the middle of October, and remains until about the middle of April. It is a heavy-bodied bird, and well supplied with down. When in full plumage, a heavily-laden gun is required to stay its onward course. When numerous, on the south shore of Long Island, the gunners watch a favourable opportunity, when the surf is down, and with fifteen or twenty boats, form a line about two or three gun-shots apart. In this way it is difficult for a flock to avoid one or the other of the boats. Those used for this purpose are light skiffs, containing generally but one person, as the object is to have the boats light, in order that they may ride the waves with safety.

"This manner of shooting should be practised only by experienced baymen, for if the wind comes in suddenly from the south, as sometimes happens, it causes the surf to rise. On such occasions, even the most skilful are occasionally drowned.

"In water-fowl shooting, a very general error is practised in using too heavy lead. I have noticed it particularly with this species, having often seen the bird strike the water, colouring it for a space with blood, yet still dive and swim off vigorously. This may be accounted for by the large shot lacerating the flesh in such a manner, that when it escapes the vitals, the bird is relieved by bleeding. Lighter lead makes a smaller wound, which instantly closes, thus depriving it of such relief. When using smaller shot, you have also a better chance for hitting your mark, as a larger number of pellets is contained in the same weight."

THE SURF DUCK, OR BLACK DUCK—*Fuligula Perspiculata.*—Vulgo, *Spectacle Duck—Coot.*

Abundant from Nova Scotia to Maryland in winter, moving southward even to the mouths of the Mississipi in severe weather. Breeds from Labrador, northward. The flesh, like that of the last species is coarse and fishy. Like the last and following species; it is known on the Long Island shore as a Coot, and is shot solely for sport. He is briefly described in Wilson's Ornithology, as follows:

"This Duck is peculiar to America*, and altogether confined to the bays and shores of the sea, particularly where the waves roll over the sandy beach. Their food consists principally of those small bivalve shell-fish already described, spout-fish, and others that lie in the sand near its surface. For these they dive almost constantly, both in the sandy bays and amidst the tumbling surf. They seldom or ever visit the salt marshes. They continue on our shores during the winter, and leave us early in May, for their breeding places in the

* "One or two instances of this bird being killed on the shores of Great Britain have occurred; and, as an occasional visitant, it will be figured in the concluding number of Mr. Selby's *Illustrations of British Ornithology*. It is also occasionally met with on the continent of Europe, but generally in high latitudes, and, though unfrequent elsewhere, it is not entirely confined to America."

North. Their skins are remarkably strong, and their flesh coarse, tasting of fish. They are shy birds, not easily approached, and are common in winter along the whole coast, from the River St. Lawrence to Florida.

"The length of this species is twenty inches; extent thirty-two inches; the bill is yellowish-red, elevated at the base, and marked on the side of the upper mandible with a large square patch of black, preceded by another space of a pearl colour; the part of the bill thus marked swells, or projects, considerably from the common surface; the nostrils are large and pervious; the sides of the bill broadly serrated or toothed; both mandibles are furnished with a nail at the extremity; irides white or very pale cream; whole plumage, a shining black, marked on the crown and hind head with two triangular spaces of pure white; the plumage on both these spots is shorter and thinner than the rest; legs and feet blood-red; membrane of the webbed feet black; the primary quills are of a deep dusky-brown.

"On dissection, the gullet was found to be gradually enlarged to the gizzard, which was altogether filled with broken shell-fish. There was a singular hard expansion at the commencement of the windpipe, and another much larger, about three-quarters of an inch above, where it separates into the two lobes of the lungs; this last was larger than a Spanish hazel nut, flat on one side, and convex on the other. The protuberance on each side of the bill communicated with the nostril, and was hollow. All these were probably intended to contain supplies of air for the bird's support while under water; the last may also protect the head from the sharp edges of the shells."

The American Scoter—*Fuligula Americana.*—Vulgo, *Coot.*

This bird is abundant along the Atlantic coasts during the winter, from the Gulf of the St. Lawrence to the mouths of the Mississippi. It is never seen inland.

Breeds in Labrador. Like the two last-named varieties, its flesh is worthless. Mr. Giraud thus describes it, briefly, among the birds of Long Island, where it is known, like the Velvet and Surf Ducks, as a *Coot*, to which bird, be it observed, it has no affinity, and bears no resemblance.

"*Specific Character.*—Bill reddish-orange, paler at the sides and tip; a patch of black at the sides of the base of the upper mandible, where it is very broad and high; nostrils large, perfectly free and arched; the upper part of the upper mandible as far as the nostrils, same colour, and very broad. Length nineteen inches, wing nine. Female smaller, and with the protuberance at the base much less; upper parts brownish-black; lower parts lighter.

"This is also one of the 'Coots.' It passes its time at sea, and subsists by fishing, frequently associating with the Velvet and Surf Ducks. Like all other divers, it is often caught by becoming entangled in the fishermen's nets. In the Eastern States it is known by the name of 'Butter Bill.'"

The Eider Duck—*Fuligula Mollissima.*—Vulgo, *Squaw Duck.*

This well-known species, famous for its admirable down, is common to both continents. A few pair breed on the coast of Maine, and thence northward to Labrador. It is a rare visitant, however, any where along the Atlantic coasts of the United States; is seldom indeed seen southward of New York, and hardly ever of New Jersey.

Its flesh is intolerably oily and fishy; and but for its down it is worthless.

To the Esquimaux and the Greenlander alone can it be regarded in the light of game. Its peculiarity, and the fact of its occasionally breeding on the coast of the States, which no other of the Sea-ducks—*Fuligula*—are known to do, alone induces me to give it a place in this work.

Golden-eye Duck—*Fuligula Clangula.*

"Male, 20.31½. Female, 16.23.

"Abundant during the winter on all the running streams of the interior, as well as along the Atlantic coast, as far south as the Gulf of Mexico. Breeds in the high northern latitudes, accidental in the north-eastern districts, Rocky Mountains, Columbia River.

"Adult male in winter:

"Bill black. Iris bright yellow. Feet orange-yellow, webs dusky, claws black. Head and upper part of the neck deep green, changing to purple in certain lights. Back, posterior scapulars, inner secondaries, edge of wing, alula, primary coverts, primary quills, and four or five outer secondaries, black; the back being darker and glossy, the wing feathers tipped with brown. An elliptical patch between the base of the bill and the eye; lower part of the neck all round, sides of the body anteriorly, the lower parts generally, the scapulars, excepting their margins, which are black, a large patch on the wing, including many of the smaller coverts, some of the secondary coverts, and six or seven of the secondary quills, are white. The basal parts of the secondary coverts black. Axillar feathers and lower wing coverts dusky; the elongated feathers of the sides have the inner, some of them also their outer margins, black; that colour, in those of the innermost, covering the whole web. The feathers on the legs, and along the sides of the rump, dusky. The tail brownish-gray.

"Length to the end of tail, 20 inches; to end of wings, 17½; to end of claws, 20¼; extent of wing, 31½; bill along the ridge, 1⅝—from the angles, 2; wing from flexure, 9; tail, 4½; tarsus, 2½. Weight, 2 lbs. 4½ oz.

"Adult female:

"The female is much smaller. Bill dusky; a portion at the end, not however including the unguis, dull yellowish-orange. Eyes and feet as in the male. Head and upper part of the neck dull reddish-brown; lower

part of the neck and sides of the body, brownish-gray, the feathers margined with pale gray. Wings brownish-black, seven of their coverts, excepting at the bases, white; the smaller coverts lighter and tipped with grayish-white; the legs and sides of the rump grayish-brown.

"Length to the end of tail, 16 inches; to end of wings, 15; to end of claws, 17½; extent of wings, 28. Weight, 1¾ lbs."—*Audubon's Birds of America.*

"This duck is well known in Europe, and in various regions of the United States, both along the seacoast and about the lakes and rivers of the interior. It associates in small parties, and may easily be known by the vigorous whistling of its wings as it passes through the air. It swims and dives well, but seldom walks on shore, and then in a waddling, awkward manner. Feeding chiefly on shell-fish, small fry, &c., their flesh is less esteemed than that of the preceding. In the United States they are only winter visitors, leaving us again in the month of April, being then on their passage to the North to breed. They are said to build, like the Wood-Duck, in hollow trees.

"The Golden-Eye is found on both continents, and in the northern parts of Europe during winter, and is one of the most common migratory Ducks. The Garrots are distinguished by a short, stout and compact body; the neck short; the head large, and apparently more so from its thick plumage; the bill short, but thick, and raised at the base; the feet placed far behind, and formed for swimming. The flight is short and rapid. In habit, they delight more in lakes and rivers than the sea; are generally found in small flocks; are very clamorous during the breeding season, and feed on fish, aquatic insects, moluscæ, &c. Richardson says, *Clangula vulgaris* and *albeola* frequent the rivers and fresh-water lakes throughout the Fur Countries, in great numbers. They are by no means shy, allowing the sportsman to approach sufficiently near; but dive so dexterously at the flash of the gun, or the twanging of a

bow, and are consequently so difficult to kill, that the natives say they are endowed with some supernatural power. Hence their appellation of 'conjuring' or 'spirit Ducks.'

"In Britain, they are winter visitants, assembling in small parties on the lakes and rivers. On the latter, they may be generally found near the head or foot of the stream, diving incessantly for the spawn of salmon, with which I have often found their stomachs filled. The party generally consists of from four to ten, and they dive together. At this time it is not very difficult to approach them, by running forward, while they are under water, and squatting when they rise. I have often, in this way, come to the very edge of the river, and awaited the arising of the flock. When taken by surprise, they dive on the instant of the first shot, but rise and fly immediately after.

"The young of the first year has been made a nominal species, and is somewhat like the adult females, but always distinguished by larger size, darker colour of the plumage of the head, and the greater proportion of white on the wings. The males have the white spot on the cheek perceptible about the first spring, and the other parts of the plumage proportionally distinct. Among most of the flocks which visit our rivers in winter, it is rare to find more than one full-plumed male in each; sometimes not more than two or three are seen during the winter among fifty or sixty immature birds."—*Wilson's American Ornithology.*

Mr. Wilson proceeds to observe, that he is convinced that the Lesser Morillon—*Anas glaucion*—of Europe, is no other than the young of the Golden-Eye. This point has, however, been long since investigated, and thoroughly disproved.

This is famous both in this country and in England, as being the most cunning, shy and wary of the Duck species; and although Mr. Audubon speaks of it as easily decoyed, and tempted even by the very rude imitation of itself, to pass and repass *the stools*, affording

several fair shots in succession to the gunner, I have never heard of any instance of the kind, and Mr. Giraud bears testimony to exactly the reverse, stating that, when himself well concealed, he has often known it to pass his decoys without offering to approach, or deigning them the slightest notice. The same gentleman observes, that on Long Island it is not a very numerous tribe. I have never myself shot the bird at all in the United States, although I saw it last autumn very late in the season, in large flocks on Lake Champlain. I am assured, however, that on the western and southern streams, which do not freeze at all, or not till very late in the winter, it is very common and abundant.

When it feeds on fresh waters, Mr. Wilson to the contrary notwithstanding, no Duck, with but two or three exceptions, is preferable to the Golden-Eye.

The Buffel-headed Duck—*Fuligula Albeola.*—Vulgo, *Dipper, or Butter-Ball.*

"The Buffel-headed, or rather, as it has originally been named, the Buffalo-headed Duck, from the disproportionate size of its head, is fourteen inches long, and twenty-three inches in extent; the bill is short, and of a light blue or leaden colour: the plumage of the head and half of the neck is thick, long, and velvety, projecting greatly over the lower part of the neck; this plumage on the forehead and nape is rich glossy green, changing into a shining purple on the crown and sides of the neck; from the eyes backward passes a broad band of pure white; iris of the eye dark; back, wings, and part of the scapulars, black: rest of the scapulars, lateral band along the wing, and whole breast, snowy white; belly, vent, and tail coverts, dusky-white; tail pointed, and of a hoary colour.

"The female is considerably less than the male, and entirely destitute of the tumid plumage of the head; the

head, neck, and upper parts of the body and wings are sooty black, darkest on the crown: side of the head marked with a small oblong spot of white; bill dusky; lower part of the neck ash, tipped with white; belly dull white; vent cinereous; outer edges of six of the secondaries and their incumbent coverts white, except the tips of the latter, which are black; legs and feet a livid blue; tail hoary brown; length of the intestines three feet six inches; stomach filled with small shell-fish. This is the Spirit Duck of Pennant, so called from its dexterity in diving (*Arctic Zoology*, No. 487), likewise the Little Brown Duck of Catesby (*Natural History of Carolina*, pl. 98).

"This species is said to come into Hudson's Bay, about Severn River, in June, and make their nests in trees in the woods near ponds. The young males, during the first year, are almost exactly like the females in colour."—*Wilson's American Ornithology.*

In the "Birds of Long Island," it is mentioned thus —farther than which I have only to say that it is a beautiful and very delicate little bird:

"This beautifully variegated little Duck receives its name from the disproportionate size of its head to the body. From its constant diving, it is called by our gunners 'Dipper.' I will here remark that the true American Dipper—*Cinclus Americanus*—has only been found at the Columbia River. The marked difference in the plumage of the male and female Buffel-headed or 'Spirit Duck,' as it is sometimes called, induces many to suppose that they are distinct species. I have met with it in various parts of the United States: and indeed, during the spring and autumn, it is dispersed throughout the Union, visiting the interior as well as the sea-coast; it dives so dexterously that, when sitting on the water, it is very difficult to kill it, even with percussion caps. It is an excellent swimmer, and flies swiftly; its food consists of small fish; it is generally in fine condition, but not considered a superior bird for the table. In New Jersey it is called 'Butter Box,' or

'Butter Ball.' Its note is a single quack. It is generally met with in pairs, until the appearance of spring, when it is seen in small flocks; it arrives with us in October, remaining until the latter part of April, when it leaves for its summer residence at the North, where it breeds."

THE HARLEQUIN DUCK—*Fuligula Histrionica.*—Vulgo, *the Lord and Lady Duck.*

A very beautiful, but extremely rare species. According to Mr. Audubon, it is very rarely found southward of Boston Bay. Mr. Giraud states that the young only are now found in the inlets of Long Island, although some years since it is said to have abounded there. It breeds along the eastern coasts of the United States, up to Labrador. An instance is mentioned by Dr. Richardson of one killed on the eastern declivity of the Rocky Mountains; it is probable, therefore, that to the northward it extends its migrations very far inland.

"The Harlequin Duck is a native of both continents. It is an excellent diver, has a whistling note, flies swiftly, and to a great elevation. It is much admired in the cabinet, and its flesh is said to be excellent on the table."

" Adult male in summer:—

" Bill yellowish-olive, the tips of the unguis lighter; iris reddish-brown; feet light blue, the webs grayish-black, the claws whitish; a broad band from the base of the bill to the occiput bluish-black, margined behind with light yellowish-red, before with white, that colour forming a broad triangular spot on the cheek, anterior to the eye; sides of the head, and neck all round, purplish-blue; a spot of white behind the ears; a curved line on each side of the neck; a complete ring of white below the middle of the neck, with a curved band of the same colour anterior to the wing; all these white markings broadly edged with deep black; the fore part

of the back light purplish-blue, the hind part deepening in tint, so as to become almost black, of which colour the rump is all round; scapulars chiefly white; wing coverts purplish-blue, as are the alula and primary coverts; the quills dark grayish-brown; the tail grayish-black; a small white spot near the flexure of the wing; a band of white across the wing, formed by the tips of the secondaries, of which the inner have their outer webs principally of the same colour; fore part of the breast purplish-blue, hind part and abdomen grayish-brown; sides light red; a latent spot of white near the root of the tail.

"Length to end of tail, 17¼ inches; to end of wings, 14½; to end of claws, 16½; extent of wings, 26½; wing from flexure, 7¾; tail 3½. Weight 1½ lbs.

"The male does not attain his full plumage until after the third moult."—*Audubon's Birds of America.*

THE LONG-TAILED DUCK—*Fuligula Glacialis.*—Vulgo, *South-Southerly,—Old Wife,—Old Squaw.*

Abundant during the winter along the coasts of the Atlantic districts, to the mouths of the Mississippi. Never in the interior.

"*Specific Character.*—Length of bill from the termination of the frontlet feathers to the point, one inch and one sixteenth, the upper mandible rounded; the sides very thin; the bill rather deeply serrated, and furnished with a long nail; tail-feathers acute. In the male the middle pair of tail-feathers are extended about four inches beyond the next longest, which character is wanting with the female. Adult male with the bill black at the base; anterior to the nostril reddish-orange, with a dusky line margining the nail; fore part of the head white, the same colour passing over the head down the hind-neck on the back; eyes dark-red; cheeks and loral space dusky-white, with a few touches of yellowish-brown; a black patch on the sides of the neck, terminating in reddish-brown; fore-neck white; breast

brownish-black, terminating in an oval form on the abdomen—the latter white; flanks bluish-white; primaries dark-brown; secondaries lighter brown, their coverts black; a semicircular band of black on the fore part of the back; the outer two tail feathers white—the rest marked with brown, excepting the four acuminated feathers, which are blackish-brown, the middle pair extending several inches beyond the others. Female without the long scapulars, or elongated tail feathers; bill dusky-green; head dark grayish-brown; a patch of grayish white on the sides of the neck; crown blackish; upper parts dark grayish-brown; lower parts white. Length of male, from the point of the bill to the end of the elongated tail-feathers, twenty-three inches, wing eight inches and five-eighths. Female about six inches less in length.

"This hardy bird at the South is known by the name of 'South-Southerly;' in this vicinity it is called by our gunners 'Old Wife,' or 'Old Squaw.' The Long-tailed Duck is about the last that leaves its natal regions. Provided with a covering sufficient to protect it from the most piercing blast of winter, it struggles amid the icy barriers until compelled to seek a better supply of food. When in large flocks, they leave the inhospitable regions of the north for a milder climate; they soon separate in small parties, and in the course of the winter are to be met with throughout the Atlantic districts. It is very timid, and keeps such vigilant watch, that it is difficult to approach. It is very expert in diving, passing so rapidly under water, that when sitting it is almost impossible to shoot it. The most successful manner is by sailing after it. On the wing, it is the swiftest of its tribe, and the most difficult to shoot. Its body is thickly coated with down—its flesh is tough and fishy; and is occasionally seen on the small streams in the interior. Common along the Atlantic districts."
—*Giraud's Birds of Long Island.*

The King Duck—*Fuligula Spectabilis.*

This beautiful species is an inhabitant of the higher regions of both continents. It is now rarely seen so low as Boston Bay, where it is said by the gunners to have been plentiful within thirty years. In fact it is now very rare within the limits of the United States, though Mr. Giraud was so fortunate as to obtain a specimen in full plumage killed on Long Island Sound. It is closely allied to the Eider Duck, produces down as valuable, and frequents the same latitudes with that bird.

I never saw but one specimen of this beautiful bird, which was brought by my friend, Mr. Henry Palmer, of Nova Scotia, to the office of the Spirit of the Times during last summer. He had shot it off the northern end of Newfoundland, and was not acquainted with its name.

It is so rare that it cannot be termed game, and is, I presume uneatable. It will be easily recognized by its pale-yellow bill, with a gibbous process at the base, of a deep orange hue. Its crown is of a violet-gray hue; its cheeks of the most delicate sea-green; the neck white; breast yellowish-buff, and lower parts almost black. Upper parts and wings dusky, with the exception of the fore part of the back, the upper part of the wings, and a patch on each side of the rump, which are white; legs dull-orange.

Length to the end of tail 25 inches, to the end of wings 23.

The rarity of this bird renders farther description unnecessary.

The Western Duck—*Fuligula Dispar.*

This gaudy-coloured, parrot-tinted green and white fowl, with an orange-coloured belly and blue legs, is unknown to the eastern side of this continent, and is so rare on the western, except in the highest latitudes, that the figure contained in Mr. Audubon's invaluable work on American Birds was not done from an Ame-

rican specimen, but from one stuffed in the museum at Norwich in England, which was killed off Yarmouth, in the year 1830.

It is only mentioned here from the possibility, that by the growing mildness and increasing change of temperature, this bird may be drawn down to our shores. At present it is scarcely a bird, far less *game*, of the United States.

With this bird ends the list of the SEA DUCKS of the United States of America; but inasmuch as I omitted, in my mention of the Inland or Fresh-water Ducks, the WIDGEON—*Anas Americana*—which, though not properly a sea Duck, is rarely found in the interior, even in the Western States, although they do visit the waters of the Ohio, and the adjacent ponds, keeping company, however, even there with the PINTAILS and TEALS, rather than with the MALLARDS and DUSKY DUCKS. It abounds in the Chesapeake, in company with the CANVASS-BACKS, RED-HEADS, LONG-TAILED-DUCKS, and SHOVELLERS. It is there and throughout the West known as the BALD-PATE, and is esteemed excellent eating. THE GADWALL—*Anas Strepera*—and SHOVELLER—*Anas Clypeata*—have been noticed already. They are common to the West, but scarcely in sufficient quantities, though delicious birds, to be enumerated as game proper.

THE AMERICAN WIDGEON—*Anas Americana*—Vulgo, *Bald-pate.*

"This is a handsomely-marked and sprightly species, very common in winter along our whole coast, from Florida to Rhode Island, but most abundant in Carolina, where it frequents the rice plantations. In Martinico, great flocks take short flights from one rice-field to another, during the rainy season, and are much complained of by the planters. The Widgeon is the constant attendant of the celebrated Canvass-back Duck, so abundant in various parts of the Chesapeake Bay, by

the aid of whose labour he has ingenuity enough to contrive to make a good subsistence. The Widgeon is extremely fond of the tender roots of that particular species of aquatic plant on which the Canvass-back feeds, and for which that Duck is in the constant habit of diving. The Widgeon, who never dives, watches the moment of the Canvass-back's rising, and, before he has his eyes well-opened, snatches the delicious morsel from his mouth, and makes off. On this account the Canvass-backs and Widgeons, or, as they are called round the bay, Bald-pates, live in a state of perpetual contention; the only chance the latter have is to retreat, and make their approaches at convenient opportunities. They are said to be in great plenty at St. Domingo and Cayenne, where they are called Vingeon, or Gingeon. Are said sometimes to perch on trees; feed in company, and have a sentinel on the watch, like some other birds. They feed little during the day, but in the evenings come out from their hiding-places, and are then easily traced by their particular whistle, or *whew-whew*. This soft note or whistle, is frequently imitated with success, to entice them within gun-shot. They are not known to breed in any part of the United States; are common in the winter months, along the bays of Egg Harbour and Cape May, and also those of the Delaware. They leave these places in April, and appear upon the coasts of Hudson's Bay in May, as soon as the thaws come on, chiefly in pairs; lay there only from six to eight eggs, and feed on flies and worms in the swamps; depart in flocks in autumn.

"These birds are frequently brought to the market of Baltimore, and generally bring a good price, their flesh being excellent. They are of a lively, frolicsome disposition, and, with proper attention, might easily be domesticated.

"The Widgeon, or Bald-pate, measures twenty-two inches in length, and thirty inches in extent; the bill is of a slate-colour; the nail black; the front and crown cream-coloured, sometimes nearly white, the feathers

inflated; from the eye backwards to the middle of the neck behind, extends a band of deep glossy green, gold and purple; throat, chin and sides of the neck before, as far as the green extends, dull yellowish-white, thickly speckled with black; breast and hind part of the neck, hoary bay, running in under the wings, where it is crossed with fine waving lines of black; whole belly white; vent black; back and scapulars black, thickly and beautifully crossed with undulating lines of vinous-bay; lower part of the back more dusky; tail coverts long, pointed, whitish, crossed as the back; tail pointed, brownish-ash; the two middle feathers an inch longer than the rest, and tapering; shoulder of the wing brownish-ash; wing coverts immediately below, white, forming a large spot; primaries brownish-ash; middle secondaries black, glossed with green, forming a speculum; tertials black, edged with white, between which and the beauty-spot, several of the secondaries are white.

"The female has the whole head and neck yellowish-white, thickly speckled with black, very little rufous on the breast; the back is dark-brown. The young males, as usual, very much like the females during the first season, and do not receive their full plumage until the second year. They are also subject to a regular change every spring and autumn.

This species is closely allied to the European Widgeon, and may be taken as the American analogue. They seem to meet each other about the arctic circle; that of America extending beyond it, and that of Europe reaching to the European verge. They will form the types of Stephens's genus *Mareca*, which will probably stand in the rank of a more subordinate group only. The form is one of considerable interest, possessing many combinations, which may be found to connect some parts of the natural system. The bird of Europe, except in the breeding season, is mostly an inhabitant of the sea-shore; during a severe winter, a few stray inland to the larger lakes and rivers, but as soon as a recurrence of moderate weather takes place, they return

to their more favourite feeding-grounds. In Britain they are mostly migratory, and at the first commencement of our harder weather, are found in vast flocks on the flatter coasts, particularly where there are beds of muscles and other shell-fish. During day they rest and plume themselves on the higher shelves, or doze buoyant on the waves, and only commence their activity with the approach of twilight. At this time they become clamorous, and rising in dense flocks from their day's resort, proceed to the feeding-grounds, generally according to the wind in the same tract. At the commencement of winter they are fat and delicate, much sought after by the sea sportsmen, and are killed in numbers by persons lying in watch in the tract of the known flight, or what in some parts is called *slaking*. The most propitious night for this sport is about half moon, and strong wind; the birds then fly low, and their approach is easily known by the whistling of their wings and their own shrill cry; whence their coast name of *Hew*. They are subject to an annual change of plumage. Mr. Ord mentions, that a few of these birds breed annually in the marshes in the neighbourhood of Duck Creek, in the State of Delaware."—*Wilson's American Ornithology.*

The three birds of the genus *Mergus*, namely the GOOSANDER, *vulgo*, SHELLDRAKE—*Mergus Merganser*; the RED-BREASTED MERGANSER—*Mergus Serrator*; and the HOODED MERGANSER—*Mergus Cucullatus*—though all well-known sea-fowl, all handsome birds, and all occasionally shot, are utterly unworthy to be called game, and unfit for the food of man. Merely to be named, is, for these, almost too much honour.

And here ends the list and descriptions of the Shore Birds and Sea Fowl of the United States. A notice is to ensue of the various modes by which they are captured, and then we pass on to a nobler division of our subject, the hunting proper, and wilder sports and animals of the Western States, and the great occidental wilderness.

BAY SHOOTING.

By this term I intend to designate the shooting of all those species which have been enumerated and described in the first pages of this volume as Bay Snipe, although, as I have before observed, with the exception of the Red-breasted Snipe—*Scolopax Noveboracensis*—known generally as the Quail Snipe, or Dowitcher, and the Semipalmated Snipe, or Willet, there is not one among them which has even a pretension to be called Snipe.

All the different tribes which pass under this wholly inappropriate and unscientific name, are, as we have seen, permanent dwellers during the whole year, with the exception of a brief period during the breeding season, of some or other portion of the United States. Wintering southward, they pass north and eastward during the spring, and almost before the summer is spent, are on the coasts of Massachusetts, New York, and New Jersey, with their young broods.

Like all those birds which visit these States, on their way to breed in the spring, and return in the autumn, these are far tamer and more settled, and make a much longer sojourn on our coasts at the latter than at the former period; and from Boston Bay to Egg Harbour, the shores swarm wherever there are appropriate feeding places, with these countless aquatic myriads.

Late in July, all, with but few exceptions of these tribes, have re-assembled, and their numbers continue to increase, as fresh accessions keep streaming from the great northern nursery, until the approach of winter again drives them southward.

During their spring visit, comparatively speaking, these birds are unmolested, few persons troubling their

heads to shoot them while Brant are in the bays, and English Snipe on the inland morasses; but when they return, it is the very deadest season of the sportsman's year. Snipe are away in the North, Woodcock are moulting, and Quail hatching or hovering their young broods. The Upland Plover, it is true, is in season, and the Rail likewise, but the localities, in which only these two delicious birds are taken, are few and far between; and where the shore birds most do congregate, are the very regions in which the Bartramian Sandpiper, and the Sora Rail are not.

Therefore they are pursued eagerly, by the baymen and professional gunners, for the gain which they realize by them—for though, with hardly an exception, their flesh is rank, sedgy, or fishy, and uneatable, the absence of other game causes them to be brought to table, and they readily find a market—by amateurs and sportsmen, from the desire of excitement, and the lack of every other sport.

Some persons who shoot well, are exceedingly fond of this amusement, as it gives no trouble, requires no fatigue or exertion, and, above all, as, on good days, the shooting is incessant, and the bag often immense.

There is, in fact, no accounting for tastes, as regards field-sports. Some men regard the amusement as affected merely by the number of shots; others by the size of the game killed. For myself, I look to the excitement of pursuit, the science and skill requisite, the observation of the instinct of the animals employed or pursued, and last not least, the exercise of mind and body, and the quick motion.

To me, therefore, the shooting of all kinds of wild and water fowl, on the bays and shores, with but one exception, is the tamest and most tedious of sports, —waiting at stands for Deer always excepted.

All wild-fowl shooting, with that one exception—sailing for Brant—must be executed by ambush, not by pursuit; and, not being patient, to me lying in ambush is an insufferable bore, whether the result is to be the

getting a hundred shots at Sandpipers and Plovers, or one at a great terrified Hart or Hind.

To those who are fond of this sort of thing, however, the mode to be pursued, for which there are abundant opportunities, and excellent grounds everywhere, from Cape May to Montauk Point, and again in Boston Bay, is to sally forth at the fitting period of the tide, to conceal themselves either in a boat moored in a niche scooped out of a mud bank, or behind a screen of sedge on a salt marsh, near some one of the little ponds which abound in such locations; and having set out a number of wooden decoys, shaped and painted like the various kinds of shore birds, as if they were feeding in the marshes, or wading in the little pools, to await the approach of the flocks.

These, as the tide gradually rises, and successively covers the various feeding-grounds which they frequent, begin to fly in great numbers; and as they pass the various leads or passages between the salt meadow islets, are lured down by the gunners, who possess rare skill in imitating the cry or whistle of every separate species, to the vicinity of the decoys, or stools, as they are technically called, over which they will hover within fifteen or twenty yards of the shooter's ambush, and among which they will sometimes alight, and begin to feed, unconscious of the deceit. In order to render this more artful, some gunners are used to set up the dead birds which they have shot, by the aid of small sticks, among the decoys, or to tether a wing-tipped bird to a peg among them, in order to call down his passing comrades.

Some of the species are whistled much more easily, and come down more readily than others; but the proficiency which some of the men obtain in the art of deceiving, and calling down the various Sandpipers and Plovers, is very striking, and with a good man, such as John Verity, Jem Smith's boys, the Raynors, and others on the south side of Long Island, and others equally famous at Egg Harbour, in Boston Bay, and

other suitable places, a day's sport is nearly certain at the proper season.

The quantity of birds killed is sometimes really astonishing; the weather is generally beautiful, and if there be a breeze on the water, and you take the precaution of filling your basket with pleasant eatables, taking lots of ice and of good water, with a *quantum suff.* of anything you please, to render water drinkable, you may pass a summer's day agreeably enough, getting a shot either at single birds, or at heavy flocks, every few minutes.

The greatest drawbacks to the sport, are the cramped posture in which you are compelled to lie, or crouch, in order to conceal yourself, the reflection of the sun from the glassy surface of the water, which, if you are in the least degree thin-skinned, is very like to blister, and peel off every inch of exposed cuticle; and, lastly, the hordes of musquitoes and gnats, which, unless you are pretty thoroughly acclimated, will probably use you up to about as great a degree as you will use up the Willets, Robins, Dowitchers, Marlins, Yellow-legs, and Black-breasts.

If, however, despising all these small annoyances, you resolve to try the Snipe, get a good bayman, as I have advised, take your two heaviest double-barrelled guns, I do not mean Duck guns, but ten or twelve pounders, load with moderately coarse powder and No. 5 shot—not larger to my mind!—and lying low and keeping dark, you can scarcely fail to make a bag.

Generally speaking, these birds are not difficult shots; and if a flock comes fairly up to your decoys, and sails over them on expanded wings, and circles round as if to alight, you cannot miss them, and can hardly fail to make great havoc in their crowded ranks.

Sometimes, instead of being alarmed by the gunshots and the fall of their companions, the simple birds will appear to be fascinated and attracted by the cries and fluttering of their wounded associates, and will circle over and over them, giving a chance for several shots;

but in any event, if a large flock comes well over your decoys, which are not usually set above ten or fifteen yards distant, you should with prompt deliberation be generally enabled, after getting in your two first barrels fairly, to catch up your second gun and do more or less execution with it also.

Occasionally single birds, or wary flights, will skate past your decoys without noticing them, or giving any heed to your imitation of their cries, at a long distance, and at a very great rate, and in that case you must shoot far ahead of the foremost bird, or you will have no chance whatever of killing.

Written instructions can avail nothing to teach you what are the peculiar calls of the various species, much less how to imitate them, or how to distinguish what species it is that is approaching, by the order of its flight and the peculiarity of its motion, so soon as your eye can descry it against the clear blue sky, and long before you can discern its colours; yet this you must be able to do with certainty, before you can yourself become a proficient at Bay Snipe shooting. Long practice alone, and experience, can make you perfect in this. *En attendant*, without knowing anything at all about it, having a good bayman, you may have great sport. *Me judice*, however, whatever is worth doing at all, is worth doing well; and if I thought it paid to shoot Bay Snipe at all, which I do not, I should decidedly qualify myself to recognize and whistle all, as I can now some four or five of the commoner species. After all, it is less difficult with a good tutor, than it would at first be considered.

The greatest difficulty, I think, that will be experienced by a beginner in this sport, is that of correctly judging distances, the surface of smooth water being singularly deceptive, and the size of the birds, as it seems to me, being frequently augmented to the unpractised eye, by some sort of refraction, or optical delusion, so that you would suppose them nearer than they really are.

It is not easy to give any general rule for measuring the distance of a bird on the wing, so greatly does the range of vision vary in various individuals; but with a person neither extraordinarily far-sighted, nor on the other hand at all short-sighted, perhaps as good a criterion as any, is the seeing the eyes of the bird at which you are shooting, if it be a fowl of any size. This I have heard old baymen speak of, as their test of a bird being within fair shot, though were I to wait till a Plover's eyes were visible to me, I should not fire a shot in a twelvemonth.

In this, however, as in everything else connected with field-sports, a little practice will soon give facility, and until that is obtained, as good a way as any for the tyro, is to look upon his bayman in the light of a fugleman, and implicitly to follow his motions.

GUNS FOR BAY SHOOTING.

It is hardly to be expected that any person who is not entirely devoted to field-sports will go to the trouble and expense of providing himself with a gun proper for every several kind of game and mode of shooting, as if he should do so, he can scarce be completely armed without half a dozen pieces at the least. For sportsmen in general, a couple of guns, one for general work, and the other for fowl shooting, will be sufficient, but it cannot be denied that every kind of game has its peculiar weight and calibre of piece, better adapted than any other, to do execution on it.

Thus for summer Cock shooting, when the woods are in leaf, so that it is rare to fire a shot at above a dozen to twenty paces, a short, light, large-bored gun would be as effective, perhaps more effective than any, and far handier in covert, and less onerous in hot weather; the same gun would be amply sufficient for Rail shooting. For any person who could afford it and would take the trouble of having different guns for

every species of sport, for summer Cock shooting and Rail shooting, I should recommend a gun not to exceed 26 inches length of barrel, and 12 gauge, with a weight of six and a half pounds only. But this gun should not be fired with to exceed 1 oz. at the utmost of No. 8 shot.

For autumn shooting, spring Snipe shooting and the like, the piece I should recommend would be 32 inches barrel, 14 gauge, and from 7¼ to 8 lbs. weight, and this I believe to be the most killing proportion that can be adopted, and by all odds the best gun for general shooting, and therefore the most serviceable and most appropriate for a man who uses but one piece.

For Bay Snipe shooting or inland wild fowl shooting, a heavier piece is requisite, if we would do the greatest possible execution with a given gun, and for these purposes I would prefer a length of 36 inches with a weight of ten pounds, and a gauge of 12. I am still speaking of double guns.

But for large-fowl shooting, and especially at large flocks, I would by all means prefer a single gun, as a double gun of the requisite length and calibre would be wholly unmanageable if made of the proper weight of metal; and must consequently be made so light, preserving the true length and gauge, as to kick very severely, if not to be dangerous.

The heaviest shoulder gun that can be used conveniently and quickly, is from 13 to 16 lbs., and with this weight a length of 42 inches, and No. 7 gauge; 3 oz. of No. 1 or 2 shot can be thrown with the greatest possible effect, and will do more execution than larger shot. A is the biggest that should ever be fired from a shoulder gun, and if made in a *green* wire cartridge, will execute as far as can possibly be desired, even at Geese or Swans. The best wadding for Duck guns is thick felt wadding, and the best powder is that already named—Curtis & Harvey's *Hawker's* Ducking powder. A little less than the same *measure* which contains your charge of shot, full of powder, is the right charge for

guns of all weights and calibres, according to the new and true system of heavy powder, light shot.

I am perfectly satisfied that one sportsman, using two such single guns as that here described, will kill double the quantity of game that will be brought to bag by another using a double gun of the same or smaller calibre, with a weight of 20 pounds, which is the greatest that can be used by a very strong man handily, and which even then must necessarily be very inconvenient, owing to two causes: first, that a weight of 20 pounds is insufficient to a piece of greater calibre than 10 pounds, with a length of 38 inches for a double gun; and second, that the lighter single piece is far more manageable, as well as far more effective.

Now, having described all these various forces and forms of guns, each most effective for some one kind of shooting, I will simply add, in conclusion, that, for all ordinary purposes, a man is, to all intents and purposes, sufficiently well armed for every kind of shooting, who carries the ordinary gun of 7¾ lbs. weight, 38 inches barrel, and 14 gauge, and who has a single duck gun, such as I have described above; or, still better, if he is an eager and constant fowl shooter, two such exactly similar.

For the former, I would prefer, if the price were within my means, the best English gun that could be furnished by Messrs. William Moore and William Gray, No. 78, Edgeware Road, London, whom I consider to be, all in all, at this moment, the best makers in the world. Mr. Purday is undeniably a great and good maker; but of late, the guns of his make, which I have seen in this country, are inferior in power and solidity to his work, as I remember it of old. This may arise, however, from some temporary fashion of the market, or from some whim of the persons for whom the pieces were built; and there is no doubt that, whoever orders a gun of any one of some half a dozen London makers, will be thoroughly well suited and satisfied.

Colonel Hawker has published in his great work a

list of all the London makers; this, for many reasons, I consider wholly unnecessary in such a book as this, as few persons here are likely to order guns, without some knowledge of whom they are employing.

I would, however, here especially advise any American sportsman to avoid purchasing English guns through the medium of American gunsmiths, and still more through American mercantile importing houses. It is not too much to say, that a first-rate maker's gun is never for sale by the former, unless it comes into their hands second-hand, and by an accident; and that the work imported by the latter, and disposed of at wholesale or retail, is the very worst style of Birmingham pinchback gimcrackery. From Charles Lancaster, 151, New Bond Street, Joseph Lang, 7, Haymarket, William Moore and William Gray, 78, Edgeware Road, Samuel Nock, 49, Regent Circus, James Purday, 314½, Oxford Street; as also from the Messrs. Egg, Piccadilly, Forsyth, Leicester Square, and Manton, Dover Street; first-rate guns may be procured for first-rate prices; and in the long run, I believe, to give such prices for such pieces, will be found to be not only the best, but the cheapest policy.

For the heavy Duck guns I earnestly recommend Mullin, of Barclay Street, New York, as the best and cheapest maker in the United States, be the other who he may. He will furnish a single Duck, such as I have described above, thoroughly finished, in the style Col. Hawker recommends, without any engraving or ornament, for seventy-five dollars, or perhaps less money; and I will back such a gun of his make, on the dimensions given above, to beat any imported gun of any dimensions, which can be delivered in New York for the same price. Furthermore, I would rather employ him to build me a gun of any style, not to exceed one hundred and fifty dollars in price, than buy any imported gun at a New York shop for one hundred and seventy-five, or import one myself at the same price. I have tested his work thoroughly, and can speak to its

excellence and durability. Constable, in Philadelphia, also makes well, and these two are the only *makers* on this side the Atlantic whose work I would care to purchase for my own use.

For all articles of imported gunsmith's work, as flasks, pouches, spare nipples, powder, wadding, Eley's cartridges, or the like, Henry T. Cooper, a few doors above Maiden Lane, in Broadway, will be found a competent and complete purveyor. No one can go astray in sending orders for any supplies of fancy or out-of-the-way implements or materials of sportsmanship to him, as he will certainly be promptly and properly served.

I have tried metallic wadding for common fowling-pieces, and think well of it, not having found it liable to the objection generally brought against it, that it scratches the interior of the barrel, which I believe to be impossible. Its advantages are its small bulk, its portability, and its non-liability to become wet. Any cut wadding, made of pasteboard, free from glue or paste, is, however, as good as anything can be. For all shooting, but most of all for sea-fowl shooting, Starkey's central fire caps, at five dollars the thousand, are the best copper caps, by a thousand to one, that are made. No degree of dampness or wet will prevent their instant ignition, and discharging their whole fire into the tube of the nipple, they do not corrode the exterior, and are the cleanest, quickest, and strongest implements of ignition I have ever tested. Despite the price I use no others.

FOWL SHOOTING ON LONG ISLAND.

This sport, of which some persons become passionately fond, preferring it infinitely to Upland shooting, braving all sorts of weather, and incurring infinite fatigue in pursuit of it, is followed on the Long Island bays, for the most part, by two methods only, both of which, like the last, partake in all respects the nature of ambush, rather than of pursuit.

The common, and what may be called the old-fashioned mode, closely resembles that above described, under the head of Bay Snipe shooting, and consists in secreting a boat, containing one or more gunners, in a recess scooped out of a mud bank, and disguising it still farther with sedges and sea-weeds, in a position commanding some favourite feeding-ground of the Ducks and Geese, and anchoring a flock of wooden decoys at a proper distance from the station in the shallow water.

As the tide rises, the fowl move from place to place, coming from what then becomes deep into shallower water, and *vice versâ*, at the ebb; and as they fly to and fro, they are attracted by what they imagine to be a flock of their confederates, and sail down to hold colloquy with them, sometimes even settling in their midst, and giving the experienced gunner favourable opportunities at times of getting three or four barrels into the flock, and so doing deadly execution.

Canada Geese can often be induced to lower their flight, and stoop to the decoys by the imitation, which is very accurately performed by many of the men, of the hoarse *honking* of the Ganders; and if they come fairly to the stools, great is the excitement of watching

their approach, as they come beating the air with the heavy sweep of their long wings, dimpling the smooth surface of the water with their dragging legs; and huge is the sport if you succeed in delivering a volley of four heavy single guns, well loaded with A, which I greatly prefer to BB, int[illegible]heir midst.

Brent, which, [illegible]t to the Canada Goose, is, in my opinion, the best bird shot on the Long Island waters, is much more wary, and less easily decoyed. In fact, they rarely settle to the stools so as to afford a fine shot, although at times they will *swim* up to them. It has been recently found that a skilful oarsman can herd and drive them down to the decoys, where his companions are awaiting them, as they will swim steadily away in a direct line from the bows of an advancing boat, without attempting to take wing, unless they are pressed too closely; and advantage has been taken of this propensity to make great havoc. Another common method of killing this delicious bird, the flesh of which is rarely, if ever fishy, and which in May especially is super-excellent, is to lie in wait for them in hiding-places, constructed so as to command and sweep the sand-bars on which they are wont to congregate in great flocks, for the purpose of wallowing and dusting themselves in the white sand. It is by this method that the greatest numbers of them have been generally killed.

There is another plan for taking Brent Geese, or Brant, which, although it is denounced by Mr. Giraud as unsportsmanlike, and as highly detrimental to the feeding-grounds, is nevertheless in my mind infinitely the best fun, the highest excitement, and the greatest sport, of any kind of fowl shooting—I mean sailing for the fowl before the wind, in light swift boats. These Geese have the habit, as I have observed before, of swimming away directly in front of pursuing boats; and it would appear that with a sail-boat coming snoring down before a stiff breeze, they miscalculate the distance and velocity of the approaching peril, as they will frequently let a boat run almost into the midst of them,

before they will attempt to rise, and when they do so, as they usually face the wind in taking wing, they are compelled first to breast you, and then to present fine side shots.

I do not doubt that Mr. Giraud is perfectly right when he states, that this practice, if persisted in, has a tendency to frighten the Geese from their feeding-grounds; and therefore for the sake of preserving these, it may be advisable for those who have an interest in protecting them, to discountenance the method. I cannot for my life, however, see in what respect it is unsportsmanlike; nor by any exertion of my wits, can I discover what there is sportsmanlike at all, in any portion of our system of fowl-shooting. Indeed, though it be well enough as a mode of killing game, it is to me wofully dull work, however rapidly the shots may come in, to lie cramped up on your belly in a boat, or still worse, on your back in a battery, in cold autumn weather, with the salt water freezing wherever the spray falls on your pea-jacket, or sou'-wester, or in warm spring-time, with the sun blazing down in your face, and reflected upward from the intense mirror of the liquid surface.

There is no accounting for tastes, however, and certainly no true sportsman will take much heed of the fatigue, or roughing of any kind, to which he must submit, in the pursuit of his favourite game. If less discomfort, there is more toil by half in Upland shooting, whether it be winter or summer, than in decoy fowl shooting; to me the lack of excitement, and the sameness of position, is the great drawback to the sport; I have learned, however, to respect the tastes of all men, and to depreciate no kind of sport, especially one which has so many ardent and enthusiastic followers, as this of Long Island fowl-shooting.

I should, indeed, be but a degenerate sportsman, and a poor disciple, had I listened so often as I have done to the quaint converse, and revelled so rarely in the eloquent descriptions of my poor friend, J. Cypress,

junr., rejoicing to narrate how he and Ned Locus "could each cut down a Leather-head, flying by a point of marsh before a strong north-wester, sixty yards off, nineteen times out of twenty. That is a fact," quo' he, "and there are not many men, beside us and John Verity, and Raynor Rock, who are up to that performance. Uncle Ben Raynor could do it once, and Dan thinks he can do it now; but, as Peter Probasco says, 'I have my doubts.' Multitudinous sportsmen may shoot *well*, but none but a man of true genius can shoot *splendidly*. Shooting, in its refinement and glory, is not an acquired art, a man must be born a shot, as much as he must be born a poet. You may learn to wing-break a starved pigeon, sprung out of a trap, fifteen or twenty yards off; but to stop a Cock in a thick brake, where you can see him only with the eye of faith, or to kill a vigorous Coot, cutting the keen air, at daybreak, at the rate of three miles a minute—requires an eye, and a hand, and a heart, which science cannot manufacture. The doctrine of Pliny, the naturalist, contained in his chapter on Black Ducks, is correct beyond a question: '*Legere et scribere est pædagogi; sed optimé collineare est Dei!*' Reading and writing are inflicted by schoolmasters; but a crack shot is the work of God.

"'Them's my sentiments,' as Peter again says."

And Heaven defend that I or any other should depreciate the sport which can inspire 'them sentiments' to any writer. Poor fellow! whether he were born a shot or no, assuredly he was born a poet, the very laureate of American field sports and sportsmanship. Hear with what strains the flight of Canada Geese inspired him, and then say, gentle reader, was he not, in the largest sense of the word, born a poet:

"They come, they tear the yielding air, with pennon fierce and strong,
On clouds they leap, from deep to deep, the vaulted dome along;
Heaven's light horse, in a column of attack upon the pole;
Was ever seen, on ocean green, or under the blue sky,
Such disciplined battalia as the cohort in your eye;—
Around her ancient axis, let old Terra proudly roll,
But the rushing flight that's in your sight, is what will wake your soul.

"Hawnk! honk! and forward to the Nor'ward, is the trumpet tone,
What Goose can lag or feather flag, or break the goodly bone.
Hawnk! onwards to the cool blue lakes, where lie our safe love bowers,
No stop, no drop of ocean brine, near stool, nor blue light tory,
Our travelling watchword is, '*our mates, our goslings, and our glory!*"
Symsonia and Labrador for us are crowned with flowers,
And not a breast on wave shall rest, until that heaven is ours.
Hawnk! hawnk! E—e hawnk!"

And, here, I was about to follow the above with a description of my own, of battery-shooting, as practised in the Long Island bays, but especially in the neighbourhood of the Fire-Islands; but in hunting up the spirited versicles quoted above, in an old number of the Turf Register, I hit, by accident, on an extract so strikingly correct and graphic, that I have not been able to refrain from quoting it, although I cannot give the name of the author, who has rejoiced to subscribe himself by the euphonious title of a sockdolager.

"Reader,—gentle we will not term you, as the epithet is so completely identified in our mind with the idea of a spruce young gentleman, his locks redolent of Oil Maccassar, and his digits invested in primrose-coloured kid, that we will not insult you by applying it—reader, then, have you, in your various wanderings over this habitable globe, ever enjoyed one of the most exciting of all amusements—a good day's wild-fowl shooting? If such has been your fortune, does not the sight of the engraving at the commencement of the present number recall at once to your recollection many an excellent day's sport? Can you not fancy yourself once more at Jim Smith's, on Fire Island, lying in your boat, your finger on the trigger, and waiting with a beating heart for the approaching flock to decrease the distance by a few yards more, before you open into their close column a raking fire from your heavy double-barrel? We know that you can, and therefore shall leave you to fight your battles o'er again, and plan future campaigns against the unsuspecting Ducks, while we charitably proceed to enlighten the understanding of your less-gifted fellow-student with a few remarks on the science of wild fowl shooting.

"The principal place for the enjoyment of this sport in the neighbourhood of New York is Long Island; and from Montauk to Jamaica, the southern coast being deeply indented by bays and inlets, forms an excellent feeding-ground throughout its whole extent, for almost every species of the Duck tribe which is in the habit of visiting our shores. To the mode of shooting, then, on the island, we shall first direct our attention, as it is practised, with such slight variations as the nature of the waters and the habits of the fowl may require, in almost every part of the United States. That most murderous mode of destroying Geese, Brant, &c., from a *battery*, has, as it certainly ought to be, been abolished by an act of the legislature of the State; for though a greater number of birds may be killed by this method than any other, yet as the batteries were anchored on almost every flat where there was a possibility of their feeding, it had the effect of driving them from their usual haunts, and compelling them to seek for refuge in some place less securely fortified. The battery is formed of a deal-box, about seven feet long, three wide, and two deep; from the rim of this a platform of board runs off at right angles, about six feet on every side, and the interior is caulked to render it water-tight. This is moored on some shoal where the birds are observed to be in the habit of resorting, and ballasted with stones until the platform merely floats on the surface of the water; this flat surface is then lightly covered with sedge, so that at a very short distance nothing but a small quantity of apparently floating weed is discernible. Before the first faint streaks of light mark the approach of day, the shooter, in a light skiff, which can be easily paddled by one man, makes his appearance on the ground, and at once prepares for action. The stool-birds are first placed about twenty yards from the battery; these are Ducks, Brant, or Geese, as he may expect the particular species to fly, though the three different kinds are all frequently represented. However, we do not think that Ducks will 'come up' to the stool with the same

confidence when this is the case. The stools are made of wood, and painted so as really to pass as very respectable personifications of the various feathered bipeds they are intended to represent, and are retained in their positions by a string with a stone tied to the other end. When two or three dozen of these decoys are kept in motion by the gentle ripple, which almost invariably curls the surface of the bay, with their heads all turned to windward, they might very readily be mistaken, at a short distance, for a flock of wild-fowl, so complete is the deception. When the business of laying out the birds is accomplished, the next thing is to get into the machine itself, an object of no little difficulty, from its ticklish nature, being balanced almost even with the water's edge, and the distance to which the boards project from the sides. When this is at last achieved, he places his gun and ammunition by his side, and extends himself at full length in his floating box, while his companion paddles off some distance, to await the event, and remain in readiness to pick up the game.

"In the meantime morning is slowly breaking. The whole sky assumes a kind of saffron tint, under the influence of which the distant gull appears magnified to twice its size, as it wheels over the waters in search of prey; at last a small dark line appears in the distance, moving swiftly across the sky. Each moment it grows more distinct, until at last the eye can plainly trace the form of the birds of which it is composed, and the certainty that a large flock of Brant are rapidly advancing, sends a thrill of delight through the frame of the expectant fowler. They approach within a hundred yards —then, as if suspicious, wheel with a hoarse gabble and retreat; but an excellent imitation of their note again attracts their attention. Once more their course is directed towards their hidden foe; on they come, sailing with outstretched wings—they are almost over the stool, when, starting to his knees, the occupant of the battery raising his gun to his shoulder, takes them on the turn as they are huddled together, and by a rapid

discharge of both barrels, strews the water with the dead and dying.

"Such is shooting from a battery, and we would only remark in conclusion, that if incited by our remarks, or the evil demon of curiosity, any young gentleman should ever find himself ensconced in one of these machines some cold November morning, we would merely recommend him to provide himself with thrice the patience of an angler, and as these worthy brethren are said to possess an equal stock with that of the justly celebrated Job, perhaps if he is good at figures, and has served a broker's office in Wall Street, he may be enabled to discover the exact quantity required."

This agreeable writer, in a later portion of the same article, in speaking of the ordinary method of shooting, described heretofore, states that, "The best gun you can use is a double-barrel, of 3 feet 6 inches in the barrels, and 9 gauge, which, if substantially made, will carry a quarter of a pound of shot in each barrel, and still be sufficiently light to enable you to knock over a single bird going with the wind, at sixty or seventy yards, with as much ease as you ever floored a Woodcock in July."

With regard to this, I have only to observe that Colonel Hawker, who unquestionably knows more of the art of gun-making and all that pertains to it, than any living man not brought up to the trade, and whose decided leaning is toward long barrels and small calibres, heavy metal and heavy charges, has distinctly stated that "the proper length for a fourteen gauge gun is forty-four diameters, or 2 feet 8 inches—32 inches; that a Duck gun of 7 gauge—two sizes larger than that named above—and of 13 pounds weight, should be 3 feet 6 inches in the barrel—being considerably more than forty-four diameters, which would give but 3 feet 2½ inches barrel.

For 9 gauge, therefore, 3 feet 2½ barrels are amply sufficient, greatly exceeding forty-four diameters.

Again, the weight of a single gun of 7 gauge being

13 pounds, a double gun of 9, and the same length, ought to be at least 20 pounds, and we greatly doubt any gentleman knocking over a single bird, going with the wind, at sixty or seventy yards, with a 20 pound gun, as easily as he could floor a Woodcock in July.

Yet, once again, the Colonel says, that a gun, to carry 3 ounces of shot, which he elsewhere states to be 7 gauge, should not weigh less than 12 nor above 16 pounds; whereas, one to carry 4 or 5 ounces of shot should not be less than 16 or above 20 pounds; whereas, this writer recommends the firing 4 ounces of shot out of each barrel of a gun, either barrel of which will only weigh at the outside, 10 pounds; and I presume, judging from his remark concerning its handiness, he would make it much lighter. The same ratio would give a charge exceeding 5 ounces to the 13 pound gun, which Colonel Hawker holds unfit to carry above 3.

A gun so built and so loaded, would be positively dangerous; and one properly built to carry 4 ounces of shot from each barrel, without recoiling, should weigh from 32 to 40 pounds, a weight which cannot be discharged without a rest.

Observe, also, that an overloaded gun not only kicks, but by recoiling loses force, scatters, and overshoots.

It is for these reasons that I have recommended the use of two 7 gauge, 42 inch, 13 pound single guns. as infinitely superior to any double gun that can be held out. They will carry one-third more shot, and that two sizes larger, to almost double the distance, besides being twice as handy.

Hawker's scale of shot is No. 3 to 1 for guns of 10 or 12 gauge, 2 ounces; 1 to A for guns of 7 gauge, 3 ounces; A to B for guns of 5 gauge, 4 or 5 ounces.

And you may rely upon it, that larger shot and larger charges will produce no good effect, besides hurting the shoulder, and perhaps bursting the gun. Remember that for very long shots you should increase the quantity of powder and reduce that of shot. To kill wildfowl, cross shots at long distances, going before the

wind, you should keep the gun moving in the direction of the bird's flight, *after the trigger is drawn*, if you aim directly at your bird; or you must fire from 2 to 5 feet in front of the fowl, according to its distance and rate of locomotion.

I will only add here, that although all the varieties of Duck, and Goose I have enumerated and described above, are killed in greater or less abundance on Long Island waters, by far the most plentiful, and with exception of the third named, the most esteemed, are the CANADA GOOSE, the BRENT GOOSE, the SCAUP or BROADBILL—which is a very indifferent bird—and the REDHEAD, which is by far the best of all, though far inferior to the same bird when killed in the Potomac. The CANVASS-BACK killed on the bays is a worthless bird, and it is a singular fact, that, although greatly superior to the Red-head, when both can obtain their favourite food, the *Valisneria Americana*, it is here as far inferior to it. This brings me to fowl-shooting, as it is practised on the waters of the Chesapeake Bay, which abounds with all the finest varieties of wild-fowl in their finest condition, above any other region of the known world, and on which more sport is enjoyed by gentlemen, and more fowl slain by professional gunners, than in any other waters of America, from the noble and glorious Swan, down to the tiny Diver.

But here, as I have never enjoyed an opportunity of participating in this delightful recreation, I quote an admirable description of the sport furnished by Dr. Sharpless, of Philadelphia, to Mr. Audubon, and by him inserted in the "Birds of America."

CHESAPEAKE BAY SHOOTING.

"THE Chesapeake Bay, with its tributary streams," says he, "has from its discovery, been known as the greatest resort of water-fowl in the United States. This has depended upon the profusion of their food, which is accessible on the immense flats or shoals that are found near the mouth of the Susquehanna, along the entire length of North-east and Elk rivers, and on the shores of the bay and connecting streams, as far south as York and James rivers.

"The quantity of fowl of late years has been decidedly less than in times gone by; and I have met with persons who have assured me that the number has decreased one-half in the last fifteen years. This change has arisen, most probably, from the vast increase in their destruction, from the greater number of persons who now make a business or pleasure of this sport, as well as the constant disturbance they meet with on many of their feeding-grounds, which induces them to distribute themselves more widely, and forsake their usual haunts.

"As early as the first and second weeks in October, the smaller Ducks, as the Buffel-head,* *Anas Albeola;* South-southerly, *A. glacialis;* and the Ruddy or Heavy-tailed Duck, *A. Rubida;* begin to show themselves in the upper part of the bay; and by the last of the month, the Black-head,† *A. marila;* Widgeon ‡ or Bald-pate, *A. Americana;* Red-head,§ *A. ferina;* and the Goose,‖ *A. Canadensis,* appear and rapidly distribute themselves

* The Long-tailed Duck.
† The Scaup; Broadbill.
‡ The American Widgeon.
§ Red-headed Duck; Pochard.
‖ Canada Goose; Wild Goose.

down the bay. The Canvass-back, *A. Valisneria,* and the Swan, *Cygnus Americanus,* rarely, unless the weather at the North has been severe, appear in quantities until the middle of November. All these fowl, when first arrived, are thin and tasteless, from their privation during their migration, and perhaps preparatory arrangements, and require some days at least of undisturbed repose, to give them that peculiar flavour for which some of them are so celebrated. During the low tides succeeding their arrival, the birds sit on the flats far from the shores, and rarely rise to the wing unless disturbed; but when the spring-tides render the water too deep for feeding, they commence their career, and pass down the bay in the morning, and return in the evening. Most of these fowl feed on the same grass, which grows abundantly on the shallows of the bay and adjacent waters, and has been called duck-grass, *Valisneria Americana.* It grows from six to eighteen inches in length, and is readily pulled up by the root. Persons who have closely observed these Ducks while feeding, say the Canvass-back and Black-head dive and pull the grass from the ground, and feed on the roots, and that the Red-head and Bald-pate then consume the leaves. Indeed, although the Bald-pate is a much smaller bird than the Canvass-back, it has been seen to rob the latter, immediately on his return from under the water, of all its spoil.

"All these larger Ducks are found together when feeding, but separate when on the wing. That they feed on the same grass, is evident from the similarity of flavour; and those most accustomed to the article have a difficulty in deciding on the kind of Duck from the taste. Indeed, the Bald-pate is generally preferred by residents.

"By the middle of December, particularly if the weather has been a little severe, the fowl of every kind have become so fat, that I have seen Canvass-backs burst open in the breast when falling on the water; and spending less time in feeding, they pass up and down

the bay from river to river, in their morning and even-flights, giving, at certain localities, great opportunities for destruction. They pursue, even in their short passages, very much the order of their migratory movements, flying in a line, or baseless triangle; and when the wind blows on the points which may lie on their course, the sportsman has great chances of success. These points or courses of the Ducks are materially affected by the winds, for they avoid, if possible, an approach to the shore; but when a strong breeze sets them on to these projections of the land, they are compelled to pass within shot, and often over the land itself.

"In the Susquehanna and Elk rivers, there are few of these points for shooting, and there success depends on approaching them while on their feeding-grounds. After leaving the eastern point at the mouth of the Susquehanna and Turkey Point, the western side of the Elk River, which are both moderately good for flying-shooting; the first place of much celebrity is the Narrows, between Spesutic Island and the western shore. These narrows are about three miles in length, and from three to five hundred yards in breadth.

"By the middle of November, the Canvass-backs in particular begin to feed in this passage, and the entrance and outlet, as well as many intermediate spots, become very successful stations. A very few miles further down the western shore is Taylor's Island, which is situated at the mouth of the Rumney, and Abbey Island at the mouth of Bush River, which are both celebrated for Ducks, as well as Swans and Geese. These are the most northerly points where large fowl are met with, and projecting out between deep coves, where immense numbers of these birds feed, they possess great advantages. The south point of Bush River, or Legoe's Point, and Robbin's and Rickett's Points, near Gunpowder River, are fruitful localities. Immediatly at the mouth of this river is situated Carroll's Island, which has long been known as a great shooting-ground,

and is in the rentage of a company at a high rate. Maxwell's Point, as well as some others up other rivers, and even further down the bay, are good places, but less celebrated than those I have mentioned. Most of these points are let out as shooting-grounds for companies and individuals, and they are esteemed so valuable, that intruders are severely treated.

"It has been ascertained that disturbing the fowl on the feeding-flats is followed, in most cases, by their forsaking those haunts, and seeking others; hence, in the rivers leading to the bay near flying points, they are never annoyed by boat-shooting, either by night or day, and although the discharge of guns from the shoremay arouse them for a time, they soon return; whereas a boat on sail in chase a few times, will make them forsake a favourite spot for days.

"From the great number of ducks that are seen in all directions, one would suppose that there could be no doubt of success at any one of the points in the course of flight; but whilst they have such correct vision as to distance, and wide range of space, unless attending circumstances are favourable, a sportsman may be days without a promising shot. From the western side of the bay—and it is there that the best grounds are found—the southerly winds are the most favourable; and if a high tide is attended by a smart frost and mild south wind, or even calm morning, the number of birds set in motion becomes inconceivable, and they approach the points so closely, that even a moderately good shot can procure from fifty to one hundred Ducks a day. This has often occurred, and I have seen eight fat Canvass-backs killed at one discharge into a flock, from a small gun.

"To a stranger visiting these waters, the innumerable Ducks, feeding in beds of thousands, or filling the air with their careering, with the great numbers of beautiful white Swans resting near the shores, like banks of driven snow, might induce him to suppose that the facilities for their destruction were equal to

their profusion, that with so large an object in view, a sportsman could hardly miss his aim. But when he considers the great thickness of their covering, the velocity of their flight, the rapidity and duration of their diving, and the great influence that circumstances of wind and weather have on the chances of success, it becomes a matter of wonder how so many are destroyed.

"The usual mode of taking these birds has been, till recently, by shooting them from the points during their flight, or from the land or boats, on their feeding-grounds, or by *toling*, as it is strangely termed, an operation by which the Ducks are sometimes induced to approach within a few feet of the shore, from a distance often of several hundred yards. A spot is usually selected where the birds have not been much disturbed, and where they feed at from three to four hundred yards from, and can approach to, within forty or fifty yards of the shore, as they will never come nearer than they can swim freely. The higher the tides, and the calmer the day, the better, for they feed closer to the shores and see more distinctly. Most persons on these waters have a race of small white or liver-coloured dogs, which they familiarly call the *toler* breed, but which appear to be the ordinary poodle. These dogs are extremely playful, and are taught to run up and down the shore, in sight of the Ducks, either by the motion of the hand, or by throwing chips from side to side. They soon become perfectly acquainted with their business, and as they discover the Ducks approaching them, make their jumps less high till they almost crawl upon the ground, to prevent the birds discovering what the object of their curiosity may be. This disposition to examine rarities has been taken advantage of by using a red or black handkerchief by day, and a white one by night in toling, or even by gently splashing the water on the shore. The nearest ducks soon notice the strange appearance, raise their heads, gaze intently for a moment, and then push for the shore, followed by the rest. On many occasions I have seen

thousands of them swimming in a solid mass direct for the object; and by removing the dogs farther into the grass, they have been brought within fifteen feet of the bank. When they have approached to within thirty or forty yards their curiosity is generally satisfied, and after swimming up and down for a few seconds, they retrograde to their former station. The moment to shoot is while they present their sides, and forty or fifty Ducks have often been killed by a small gun. The Black-heads tole the most readily, then the Red-heads, next the Canvass-back, and the Bald-pates rarely. This also is the ratio of their approach to the points in flying, although, if the Canvass-back has determined on his direction, few circumstances will change his course. The total absence of cover or precaution against exposure to sight, or a large fire, will not turn these birds aside on such occasions. In flying-shooting, the Bald-pates are a great nuisance, for they are so shy that they not only avoid the points themselves, but by their whistling and confusion of flight at such times alarm others.

"Simple as it may appear to shoot with success into a solid mass of ducks sitting on the water at forty or fifty yards' distance, yet when you recollect that you are placed nearly level with the surface, the object opposed to you, even though composed of hundreds of individuals, may be in appearance but a few feet in width. To give, therefore, the best promise of success, the oldest duckers recommend that the *nearest* duck should be in perfect relief above the sight, whatever the size of the column, to avoid the common result of over-shooting. The correctness of this principle I saw illustrated in an instance in which I had toled to within from forty to seventy yards off the shore, a bed of certainly hundreds of ducks. Twenty yards beyond the outside birds of the dense mass, were five Black-heads, one of which was alone killed out of the whole number, by a deliberate aim into the *middle* of the large flock from a rest, by a heavy well-proved Duck gun.

"Before I leave the subject of *sitting-shooting*, I will mention an occurrence that took place in Bush River, a few years since. A man whose house was situated near the bank, on rising early one morning, observed that the river had frozen, except an open space of ten or twelve feet in diameter, about eighty yards from the shore, nearly opposite his house. The spot was full of ducks, and with a heavy gun he fired into it. Many were killed, and those that flew soon returned, and were again and again shot at, till fearful that he was injuring those already his own, he ceased the massacre, and brought on shore ninety-two ducks, most of which were Canvass-backs.

"To prevent the dogs from running in while toling, they are not allowed to bring out the Ducks, but another breed of large dogs of the Newfoundland and Water Spaniel mixture are employed. These animals, whilst toling is in progression, or at a point, take apparently as much interest in success as the sportsman himself. During a flight, their eyes are incessantly occupied in watching from whence the birds come; and I have frequently seen them indicate by their manner the approach of a flock, so distant that the human eye would have overlooked it. As the Ducks come on, the dog lies down, but still closely observing them, and the moment the discharge occurs, jumps up to see the effect. If a Duck falls dead, they plunge to bring it; but many of them wait to see *how* he falls, and whether he swims; and they seem to be as aware as the gunner, of the improbability of capture, and will not make the attempt, knowing from experience that a bird merely winged will generally save himself by swimming and diving. These dogs usually bring one Duck at a time out of the water; but a real Newfoundland, who was with me and my company this autumn, was seen on several occasions to swim twenty yards further, and take a second in the mouth to carry on shore. The indefatigability and ambition of these animals are remarkable, and a gentleman informed me he had known

his dog bring, in the space of one hour, twenty Canvass-backs and three Swans from the water, when the weather was so severe that the animal was covered with icicles, and to prevent his freezing, he took his great coat to envelope him. Some dogs will dive a considerable distance after a Duck, but a crippled Canvass-back, or Black-head, will swim so far under the water, that they rarely can be caught by the dog; and it often has been observed, that the moment one of these Ducks, if merely winged, reaches the surface, he passes under, and however calm, cannot be seen again. To give an idea of the extreme rapidity with which a Duck car dive, I will relate an occurrence which was noticed by myself, and a similar one was observed by another of the party the same day.

"A male South-southerly was shot at in the water by a percussion-gun, and after escaping the shot by diving, commenced his flight. When about forty yards from the boat, he had acquired an elevation of a foot or more from the surface. A second percussion-gun was discharged, and he dived from the wing at the flash, and though the spot of entrance was covered by the shot, soon rose unharmed and flew.

"Canvass-backs, when wounded on the streams near the bay, instantly direct their course for it, and there nestle among the grass on the shores till cured, or destroyed by Eagles, Hawks, Gulls, Foxes, or other vermin, that are constantly on the search. If a dead Canvass-back be not soon secured, it becomes a prey to the Gulls, which rarely touch any other kind. I have seen severe contests between crippled Canvass-backs and Gulls; and although a pounce or two generally prevents further resistance, sometimes they are driven off. If the bird is remarkably savoury, the Gull makes such a noise, that others are soon collected when possession is determined by courage or strength.

"Another mode of taking Ducks, consists in placing gilling-nets under water on the feeding-grounds, and when they dive for food, their head and wings become

entangled in the meshes and they are drowned. This plan, though successful at first, soon drives the birds from these places; and in some cases a few applications have entirely prevented their return for weeks. Paddling upon them by night or day produces the same effect, and although practised to some extent on Bush River, is highly disapproved of by persons shooting from points. For the last three years a man has been occupied on this stream with a gun of great size, fixed on a swivel in a boat, and the destruction of game on their feeding-flats has been immense; but so unpopular is the plan, that many schemes have been privately proposed of destroying his boat and gun; and he has been fired at with balls so often, that his expeditions are at present confined to the night. Sailing with a stiff breeze upon the Geese and Swans, or throwing rifle balls from the shore into their beds, is sometimes successful.

"Moonlight shooting has not been a general practice, but as these birds are in motion during light nights, they could readily be brought within range by 'honking' them when flying. This sound is very perfectly imitated at Egg Harbour; and I have seen Geese drawn at a right angle from their course by this note. They can indeed be made to hover over the spot; and if a captive bird was employed, the success would become certain.

"Notwithstanding the apparent facilities that are offered of success, the amusement of Duck-shooting is probably one of the most exposing to cold and wet; and those who undertake its enjoyment, without a courage 'screwed to the sticking point,' will soon discover that 'to one good a thousand ills oppose.' It is indeed no parlour sport; for after creeping through mud and mire, often for hundreds of yards, to be at last disappointed, and stand exposed on points to the 'pelting rain, or more than freezing cold,' for hours, without even the promise of a shot, would try the patience of even Franklin's 'glorious nibbler.' It is, however,

replete with excitement and charm. To one who can enter on the pleasure with a system formed for polar cold, and a spirit to endure 'the weary toil of many a stormy day,' it will yield a harvest of health and delight that the 'roamer of woods' can rarely enjoy.

"Although this far-famed bird was named by its discoverer after the plant *Valisneria Americana*, on which it partially feeds when on fresh waters, its subsistence is by no means dependent upon that species, which indeed is not extensively distributed, but is chiefly derived from the grass-wrack, or eel-grass, *Zostera marina*, which is very abundant on the shallows and flats along the whole sea-coasts. Its flesh seems to me not generally much superior to that of the Pochard, or Red-head, which often mingles in the same flocks; and both species are very frequently promiscuously sold in the markets as Canvass-backs."

I have here taken the liberty of extracting a single page from my friend Mr. Porter's edition of Hawker's work on shooting—an edition, which is rather a new work than what it modestly professes to be, and from which I should have borrowed more largely, had not I been prevented from so doing by the apprehension of, in the least degree, interfering with its merited success. I eagerly take this occasion of recommending it to all my readers as a work of sure authority, especially on all that relates to gunnery, and to Western sport.

"The editor of the American edition of Colonel Hawker's work is greatly indebted to Henry Dwight Chapin, Esq., of Baltimore, for the annexed original communication on the subject of Canvass-back Duck-shooting. Mr. C. is known throughout the country as a scientific and enthusiastic sportsman of twenty years' standing.

"The season for shooting this much esteemed bird commences with its arrival at the head waters of the Chesapeake Bay, on or about the 1st of November, and continues in perfection for two months, and longer, if the severity of the weather does not close with ice its

favourite haunts. Indeed thousands are killed during the months of January, February, and March, lower down the bay, but their flavour is not so delicate after they have been driven by the ice from their accustomed feeding-grounds, which abound with the water-celery, a plant whose bulbous root imparts the most delicious flavour to all the water-fowl that feed upon it.

"The usual mode of shooting them by sportsmen is upon the wing, as they pass a point, or a narrow neck of land, which they often do in flying from one feeding-ground to another. The best guns used are of large calibre, from No. 12 to No. 7 gauge, and the shot of the size B or BB. The powder coarse-grained, to obviate the recoil that necessarily ensues if fine-grained should be used.

"But there is a class of men, poachers, that shoot for market, who make the greatest havoc with this game. They silently in the night-time paddle or scull small boats into the very midst of large flocks, or beds of Ducks, whilst they are feeding, and with a tremendous piece, mounted on a swivel in the bow, slaughter immense numbers, often killing eighty or a hundred at a shot. This mode of destroying them is restricted by legislative acts, under severe penalties; but the difficulty of capturing or convicting these poachers is such, that most of them escape the penalties of the law, and pursue their unhallowed avocation, notwithstanding the greatest efforts to apprehend them; and their only punishment is the repeated anathemas and just indignation of all true sportsmen.

"There is another mode that is sometimes practised, which, though not quite so objectionable as the last, is seldom resorted to by gentlemen that shoot for pleasure, and is not permitted on grounds belonging to clubs. It is called 'toling.' A small dog, about the size and colour of a Red Fox, is made to gambol upon the shore, playing with sticks or stones that are tossed towards him from the gunners, who are lying concealed by a blind. The attention of a flock of Ducks that may be

feeding within the distance of one hundred, or two hundred yards, is soon arrested, and they are simultaneously attracted by the antics of the dog, and with one accord swim rapidly toward the shore, as if charmed."

The only kind of wild fowl shooting which now remains to be described, is one very little practised in this country. I mean what is usually called punt-shooting, with a stanchion or swivel-gun of enormous size. This mode has been adopted on the Chesapeake, but the use of the large gun is so unpopular, that it has been necessarily abandoned. On the Hudson, a gunning-punt of this kind is used by one gentleman, who kills immense quantities of Ducks, with perfect success.

The best dimensions for a gun of this kind are stated by Colonel Hawker—with whom this is, of all others, the favourite kind of shooting—to be, length of barrel from seven to nine feet; bore from one inch and a quarter, to one inch and a half; weight from seventy to eighty pounds. The barrel should not be absolutely confined below, but should be fitted with a rope breeching, extending from the butt of the gun to the stern of the punt, where it is secured. The gun fired with such a breeching, will recoil as far as the rope will stretch, say one or two inches, and will then spring forward about a foot, unless checked by a notch in the stock, which should butt against the gunning-bench. The butt of the piece should be well padded, to relieve the shoulder from the shock. Such a gun may be fired with two ounces of Curtis and Harvey's best coarse powder, and a pound of shot; the best sized shot is from No. 3 up to No. 1, for Ducks—A or AA for Geese; or cartridges of SSG for above a hundred yards. The best wadding is a tight-wound ball of the best picked oakum. Mercurial ointment is as good a thing as can be used, to prevent the rusting of guns from the effect of salt air, or salt water; but I am informed that Mr. Mullin, of Barclay Street, has a varnish of his own invention, which is perfect.

To fire these guns you must bear heavily with your shoulder against the upper part of the padded butt, taking care not to let your shoulder touch the butt, or your cheek the stock. All the fingers of the trigger hand must be kept before the guard. Your left hand should be placed over the butt, to regulate the line of aim, and your cheek should just graze the back of the hand. A little elevation must be given for the springing of birds at the flash, which they will perceive before the shot can reach them; and a good deal of practice is necessary, particularly in firing long cross shots at flocks, where it is sometimes necessary to allow a yard elevation, and to shoot as much as ten yards a-head of a fast flying flock.

The advantage of a stanchion gun over a common shoulder Duck gun, is much greater than that of the latter over a common sporting gun. They are used universally on the coast of England.

The punt, or canoe, must be as flat as possible, and as low in the water. The gunner lies flat on his breast in the bottom, when working up to birds, and paddles the vessel through two small hatches cut in the gunwale. This method of shooting is, however, so little used in America, that this brief mention of it will probably be found sufficient. Those persons, however, who are desirous of gaining fuller information on the subject, will find everything that can be said concerning it, even to the minutest directions for the building of the boat, in Hawker's work on shooting.

In working to birds, it is always desirable to go to them *up-wind*, as the birds are very ready at taking the alarm, whether from their discovering the approach of danger, as some believe, by their sense of smelling, or, what I rather believe to be the case, by the wind carrying the sound to their ears, in case of your attempting to work to them from the windward.

The best colour both for the gunning-boat, and for the gunner's clothing, is white at all times, especially on starlight nights, or in snow, unless the sun or moon

are shining very bright, when white will shine too much, and drab, both for the dress and boat, is preferable. A black hat must on no account be worn, but a cap of the same colour with the dress.

It is desirable to carry a common light gun in the boat, for shooting crippled and wing-broke fowl, which will save much time and trouble; and a large-meshed light landing-net, will greatly facilitate the bagging the dead birds.

Fog, snow, or hazy weather, is very bad for sea shooting, as it makes every object on the water loom, large, and black, and causes the birds rapidly to take alarm, except in the case of Geese, especially Brent, which apparently become confused, and will often lie quiet till the boat is paddled almost upon them.

These directions will probably prove sufficient to enable any person, who desires to try this very killing and destructive method, to meet with success after a little practice; but certainly if he be bent on practising it to the utmost, he should not be without Porter's edition of Hawker, who is the prince of authorities on this topic. And this brings me to a nobler division of my subject—the Wild Sports of the Wilderness.

WILD SPORTING OF THE WILDERNESS.

UNDER this title I include all that is generally termed hunting, all, in a word, that is executed with the rifle instead of the shot-gun, with the Horse or the Hound, instead of the Setter or the Spaniel. Hunting in its true acceptation, with packs of trained Hounds, followed in view, by mounted hunters, can hardly be said to exist in North America, although there is one regular pack of Fox-hounds, kept up and hunted in perfect English style, at Montreal, supported principally by officers of the garrison. It is well managed during the short season, and has often shown great sport and fine runs. Many gentlemen in the Southern States keep packs of Hounds for the pursuit both of the Deer and the Bear, and, when the ground is practicable, ride to them well and daringly, but the woody nature of the country, and the unwillingness of the game to break covert and take to the open, render it nearly impossible to keep near the Hounds; the principal utility of which, is to drive the animal across the stand of the ambushed hunter, and allow him to do execution on it with his trusty rifle, or his full charge of buck-shot.

In old times a pack of Foxhounds was kept at Elizabeth-town, in New Jersey, by a brother of the gallant Commodore Decatur, but it has long since been given up, and no other now exists, I believe, regularly hunted in the United States. The Fox is not, therefore, considered in any light but that of vermin, and is pursued merely for the sake of destroying a noxious animal, generally on foot, with a few heavy southern Hounds, and the gun.

The animals, therefore, which are pursued in the

sports of the wilderness, are the noblest, the largest, the fleetest and, in one instance, the fiercest in the known world.

They are,

No. 1. THE BISON, *Bos Americanus*, vulgo, *Buffalo.* Ranging west of the Mississippi and Lake Winipeg, as far north as 62°, and west of the Rocky Mountains, as far north as the Columbia River.

No. 2. THE AMERICAN ELK, *Cervus Canadensis, the Wapiti.*—A few are found in the remote parts of Pennsylvania, but with this exception, it ranges only west of the Mississippi, to the 56th or 57th parallel of north latitude.

No. 3. THE MOOSE, *Cervus Alces, Orignal of the Canadians.*—Ranging from the great Lakes to the extreme North. They are now rarely found west of Maine, and even there are becoming rare, although a few are still found in the northern part of the State of New York.

No. 4. THE REINDEER, *Cervus Tarandus, the Cariboo.*—Eastward of Maine and northward of the great Lakes to the Arctic Ocean.

No. 5. THE COMMON DEER, *Cervus Virginianus.* —Found everywhere from Canada and the Bay of Fundy to the Orinoco.

No. 6. THE BLACK-TAILED DEER, *Cervus Macrotis.*—West of the Missouri to the Rocky Mountains.

No. 7. THE ANTELOPE, *Antilope Americana, the Prong-Horn.*—West of the Mississippi to the Rocky Mountains, and so far north as the Hudson Bay Company's trading fort called "Carlton House."

No. 8. THE ROCKY MOUNTAIN GOAT, *Ovis Montana, Rupicapra Americana,* vulgo, *Rocky Mountain Sheep.*—In those parts of the Rocky Mountains which lie between 48° and 68° north latitude.

No. 9. THE BLACK BEAR, *Ursus Americanus.*— Ranging over the whole continent of North America.

No. 10. THE GRIZZLY BEAR, *Ursus Horribilis.*

—West of the Missouri, adjacent to the Rocky Mountains.

The Puma or Cougar, *Felis Concolor*, vulgo, *Panther*, the different varieties of Lynx, *Felis Canadensis*, *Felis Rufa*, *Felis Fasciata*, *Loup Cervier*, vulgo, *Wild-Cat*, the two species of Wolf, *Canis Lupis*, and *Canis Latrans*, although often pursued, and invariably killed whenever taken, I cannot bring myself to regard as game, or even animals of sport, or chase, never being scientifically or systematically hunted.

Lastly, the only bird which falls under this department of field sports, the noblest gallinaceous fowl of the world, and the finest of the order *Rasores*, is

No. 11. The Wild Turkey, *Meleagris Gallopavo*. —In Western Canada, occasionally in New York, a few in the Eastern States and in Northern Pennsylvania, though scarcely in sufficient number to be considered as game of the Eastern or Middle States. Everywhere west of the Ohio; a few in the Carolinas, Florida and Georgia, to the far West.

These animals, which are all pursued, more or less, with the Rifle and the Hound, all afford the finest and most exciting sport, are all game, with perhaps the one exception of the Grizzly Bear, of the highest order, and constitute the principal object of pursuit, and a main article of food to the wild aborigines of the Western wilderness, and the hardy woodmen, who have succeeded and supplanted them on the prairies and in the forests of the illimitable West.

Smaller game are, for the most part, held in contempt by these bold and hardy hunters; the use of the shot-gun by them is unknown and neglected, and the article itself despised as the plaything of a boy; the art of shooting on the wing being, except in the vicinity of a few of the larger western cities, utterly unknown and unpractised.

Of these fine animals, I shall proceed to give brief geological descriptions, from the best authorities, and shall then close this volume and the work, by a short

narrative of the various modes in use of pursuing and capturing each *secundum artem*, reserving only space for a few hints on the fish and fishing of the continent, and for a small appendix on various things regarding field-sports generally, which could not properly be introduced under special heads, or which have casually escaped my attention in the body of the work.

THE BISON—VULGO, BUFFALO.

Bos Americanus; Gemel. Taurus Mexicanus; Hernand. Mex. 587. *Tauri Vaccæque; Ibid. Anim. p.* 10. *The Buffalo; Catesby, Carol.* 28, *tab.* 20. *Bœuf Savage; Dupratz, Louisiane,* ii. 66. *American Bull; Penn. Quad. pl.* ii. *fig.* 2.

"From other species of the Ox kind, the Bison is well distinguished by the following peculiarities. A long, shaggy hair clothes the fore parts of the body, forming a well-marked beard, beneath the lower jaw, and descending behind the knee in a tuft. This hair rises on the top of the head in a dense mass, nearly as high as the extremities of the horns. Over the forehead it is closely curled, and matted, so thickly, as to deaden the force of a rifle ball, which either rebounds, or lodges in the hair, merely causing the animal to shake his head as he heavily bounds along.

"The head of the Bison is large and ponderous, compared to the size of the body; so that the muscles for its support, necessarily of great size, give great thickness to the neck, and by their origin from the prolonged dorsal vertebral processes, form the peculiar projection called the *hump*. This hump is of an oblong form, diminishing in height as it recedes, so as to give considerable obliquity to the line of the back.

"The eye of the Bison is small, black, and brilliant; the horns are black and very thick near the head, whence they curve upwards and outwards, rapidly tapering towards their points. The outline of the face is convexly curved, and the upper lip, on each side

being papillous within, dilates and extends downwards, giving a very oblique appearance to the lateral gap of the mouth, in this particular resembling the ancient architectural bas-reliefs representing the heads of oxen. The phsiognomy of the Bison is menacing and ferocious, and no one can see this animal in his native wilds, for the first time, without feeling inclined to attend immediately to his personal safety. The summer coat of the Bison differs from his winter dress, rather by difference of length than by other particulars. In summer, from the shoulders backwards, the hinder parts of the animal are all covered with a very short fine hair, that is as smooth and soft to the touch as velvet. The tail is quite short and tufted at the end, and its utility as a fly-brush is necessarily very limited. The colour of the hair is uniformly dun, but the long hair on the anterior parts of the body is, to a certain extent, tinged with yellowish or rust colour. These animals, however, present so little variety in regard to colour, that the natives consider any remarkable difference from the common appearance as resulting from the immediate interference of the Great Spirit.

"Some varieties of colour have been observed, although the instances are rare. A Missouri trader informed the members of Long's exploring party, that he had seen a grayish-white Bison, and a yearling calf, that was distinguished by several white spots on the side, a star or blaze in the forehead, and white fore feet. Mr. J. Doughty, an interpreter to the expedition, saw in an Indian hut a very well prepared Bison head, with a star on the front. This was highly prized by the proprietor, who called it his *great medicine*, 'for,' said he, 'the herds come every season to the vicinity to seek their white companion.'

"In appearance, the Bison cow bears the same relation to the bull that is borne by the domestic cow to her mate. Her size is much smaller, and she has much less hair on the fore part of her body. The horns of the cow are much less than those of the bull, nor are

they so much concealed by the hair. The cow is by no means destitute of beard; but though she possesses this conspicuous appendage, it is quite short when compared with that of her companion.

"From July to the latter part of December, the Bison cow continues fat. Their breeding-season begins towards the latter part of July, and continues until the beginning of September, and after this month, the cows separate from the bulls in distinct herds, and bring forth their calves in April. The calves rarely separate from the mother before they are one year old, and cows are frequently seen, accompanied by calves of three seasons.

"The flesh of the Bison is somewhat coarser in its fibre than that of the domestic Ox, yet travellers are unanimous in considering it equally savoury as an article of food; we must, however, receive the opinions of travellers on this subject with some allowance for their peculiar situations, being frequently at a distance from all other food, and having their relish improved by the best of all recommendations in favour of the present viands—hunger. It is with reason, however, that the flesh is stated to be more agreeably sapid, as the grass upon which these animals feed is short, firm and nutritious, being very different from the luxurious and less saline grass produced on a more fertile soil. The fat of the Bison is said to be far sweeter and richer, and generally preferable to that of the common Ox. The observations made in relation to the Bison's flesh when compared to the flesh of the domestic Ox, may be extended to almost all wild meat, which has a peculiar flavour and raciness, which renders it decidedly more agreeable than that of tame animals, although the texture of the flesh may be much coarser, and the fibre by no means so delicate.

"Of all the parts of the Bison that are eaten, the hump is the most famed for its peculiar richness and delicacy; because when cooked 'tis said very much to resemble marrow.

"The tongues and marrow-bones are also highly esteemed by the hunters.

"During the months of August and September the flesh of the Bison bull is poor and disagreeably flavoured; they are, however, much more easily killed, as they are not so vigilant as the cows, and sometimes allow the hunters to come up to them without much difficulty. Lewis and Clarke relate, that once approaching a large herd, the bulls would scarcely move out of their way; and as they came near, the animals would merely look at them for a moment, as at something new, and then quietly resume their grazing.

"The general appearance of the Bison is by no means attractive or prepossessing, his huge and shapeless form being altogether devoid of grace and beauty. His gait is awkward and cumbrous, although his great strength enables him to run with very considerable speed over plains in summer, or in winter to plunge expeditiously through the snow.

"The sense of smelling is remarkably acute in this animal, and it is remarked by the hunters that the odour of the white man is far more terrifying to them than that of the Indian. From the neighbourhood of white settlements they speedily disappear; this, however, is very justly accounted for by Mr. Long, who attributes it to the impolitic and exterminating warfare which the white man wages against all unsubdued animals within his reach.

"The herds of Bison wander over the country in search of food, usually led by a bull most remarkable for strength and fierceness. While feeding they are often scattered over a great extent of country, but when they move in mass, they form a dense, almost impenetrable column, which, once in motion, is scarcely to be impeded. Their line of march is seldom interrupted even by considerable rivers, across which they swim without fear or hesitation, nearly in the order they traverse the plains. When flying before their pursuers, it would be in vain for the foremost to halt, or attempt

to obstruct the progress of the main body, as the throng in the rear still rushing onward, the leaders must advance, although destruction awaits the movement. The Indians take advantage of this circumstance to destroy great quantities of this favourite game; and certainly no mode could be resorted to more effectually destructive, nor could a more terrible devastation be produced, than that of forcing a numerous herd of these large animals to leap together from the brink of a dreadful precipice upon a rocky and broken surface, a hundred feet below.

"When the Indians determine to destroy Bison in this way, one of their swiftest-footed and most active young men is selected, who is disguised in a Bison skin, having the head, ears, and horns adjusted on his own head, so as to make the deception very complete, and thus accoutred, he stations himself between the Bison herd and some of the precipices that often extend for several miles along the rivers. The Indians surround the herd as nearly as possible, when, at a given signal, they show themselves, and rush forward with loud yells. The animals being alarmed, and seeing no way open but in the direction of the disguised Indian, run towards him, and he taking to flight, dashes on to the precipice, where he suddenly secures himself in some previously ascertained crevice. The foremost of the herd arrives at the brink—there is no possibility of retreat—no chance of escape. The foremost may for an instant shrink with terror, but the crowd behind, who are terrified by the approaching hunters, rush forward with increasing impetuosity, and the aggregated force hurls them successively into the gulf, where certain death awaits them.

"It is extremely fortunate that this sanguinary and wasteful method of killing Bisons is not very frequently resorted to by the savages, or we might expect these animals in a few years to become almost entirely extinct.

"Lewis and Clarke bestowed the name of *Slaughter*

River on one of the tributaries of the Mississippi, in consequence of the precipices along the sides having been used by the Indians for this mode of killing the Bison.

"A better and more common way of killing Bison is that of attacking them on horseback. The Indians, mounted, and well armed with bows and arrows, encircle the herd, and gradually drive them into a situation favourable for the employment of the horse. They then ride in and single out one, generally a female, and following her as closely as possible, wound her with arrows, until the mortal blow is given, when they go in pursuit of others, until their quivers are exhausted. Should a wounded Bison attack the hunter, he escapes by the agility of his horse, which is usually well trained for the purpose. In some parts of the country, the hunter is exposed to considerable danger of falling, in consequence of the numerous holes made in the plains by the Badger.

"If a Bison is found dead, without an arrow in the body, or any particular mark attached, it becomes the property of the finder; so that a hunter may expend his arrows to no purpose when they fall off, after wounding or fairly perforating the animal. That the Indians do frequently send their arrows through this animal, is well attested by a great number of witnesses. In Long's Expedition to the sources of St. Peter's River, it is related that Waniha, a distinguished chief of the Sioux, has been seen to drive his arrow through the body of one Bison, and sufficiently deep into the body of a second, to inflict a deadly wound.

"When the ice is breaking up on the rivers in the spring of the year, the dry grass of the surrounding plains is set on fire, and the Bison are tempted to cross the river in search of the young grass that immediately succeeds the burning of the old. In the attempt to cross, the Bison is often insulated on a cake of ice that floats down the river. The savages select the most favourable points for attack, and as the

Bison approaches, the Indians leap with wonderful agility over the frozen ice to attack him. And as the animal is necessarily unsteady, and his footing very insecure on the ice, he soon receives his death-wound, and is drawn triumphantly to the shore.

"We have already adverted to the great number of these animals which live together. They have been seen in herds of three, four, and five thousand, blackening the plains as far as the eye could view.

"Some travellers are of opinion that they have seen as many as eight or ten thousand in a herd, but this is merely a conjecture. At night it is impossible for a person to sleep near them who is unaccustomed to their noise, which, from the incessant lowing and roaring of the bulls, is said very much to resemble distant thunder. Although frequent battles take place between the bulls, as among domestic cattle, the habits of the Bison are peaceful and inoffensive, seldom or never offering to attack man or other animals, unless outraged in the first instance. They sometimes, when wounded, turn on the aggressor; but it is only in the bulling season when any danger is to be apprehended from the ferocity and strength of the Bison bull. At all other times, whether wounded or not, their efforts are exclusively directed towards effecting their escape from their pursuers, and at this time it does not appear that their rage is provoked particularly by an attack on themselves, but their usual intrepidity is indiscriminately directed against all suspicious objects.

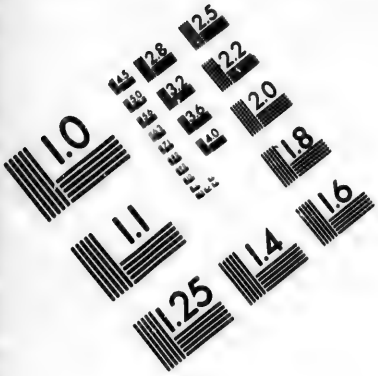
"We shall conclude this account of the Bison, by introducing the remarks of John E. Calhoun, Esq.,* relative to the extent of country over which this animal formerly roved, and which it at present inhabits.

"The Buffalo was formerly found throughout the whole territory of the United States, with the exception of that part which lies east of the Hudson's River and Lake Champlain, and of narrow strips of coast on the

* Long's Expedition to the sources of the St. Peter's River, ii., p. 28.

Atlantic, and the Gulf of Mexico. These were swampy, and had probably low thick woods.

"That it did not exist on the Atlantic coast is rendered probable from the circumstance that all the early writers whom Mr. Calhoun has consulted on the subject, and they are numerous, do not mention them as existing there, but further back. Thomas Morton, one of the first settlers of New England, says, that the Indians 'have also made mention of great [illegible]ds of well-growne beasts, that live about the [illegible]s lake'—Erocoise, now Lake Ontario—'s[illegible]e Christian world, untile this discovery, hath not been made acquainted with. These beasts are of the bignesse of a Cowe, their flesh being very good foode, their hides good lether, their fleeces very useful, being a kind of wolle, as fine almost as the wolle of the Beaver, and the salvages do make garments thereof.' He adds—'It is tenne years since first the relation of these things came to the English.' We have introduced this quotation, partly with a view to show that the fineness of the Buffalo wool, which has caused it within a few years to become an article of commerce, was known as far back as Morton's time, 1637. He compares it with that of the Beaver, and with some truth. We were shown, lower down on Red River, hats that appeared to be of very good quality; they had been made in London with the wool of the Buffalo. An acquaintance on the part of Europeans with the animal itself, can be referred to nearly a century before that; for in 1532 Guzman met with Buffalo in the Province of Ciraloa. De Laet says, upon the authority of Gomara, when speaking of the Buffalo in Quivera, that they are almost black, and seldom diversified with white spots. In his history, written subsequently to 1684, Hubbard does not enumerate this animal among those of New England. Purchas informs us that, in 1613, the adventurers discovered in Virginia 'a slow kinde of cattell, as big as kine, which are good meate.' From Lawson, we find that great plenty of Buffalos, Elks, &c., existed



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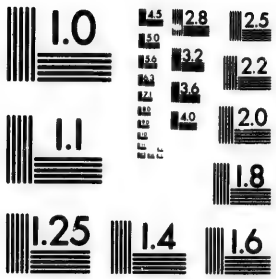

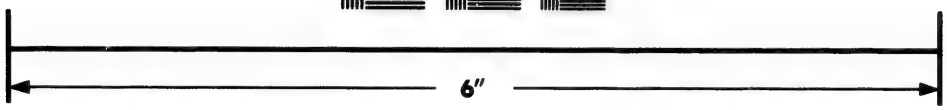

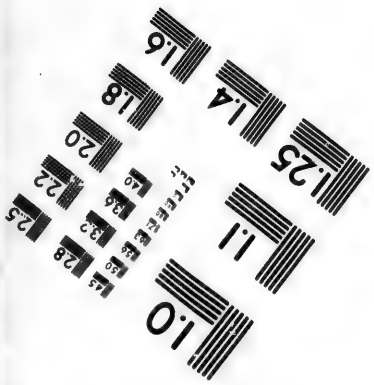

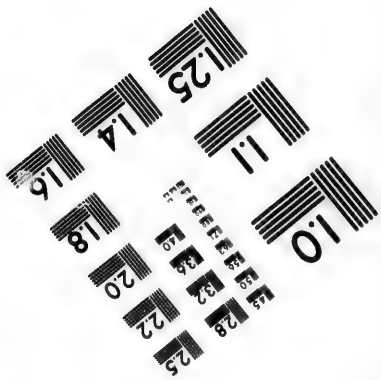

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near Cape Fear River and its tributaries; and we know that some of those who first settled the Abbeville district in South Carolina, in 1756, found the Buffalo there. De Soto's party, who traversed East Florida, Georgia, Alabama, Mississippi, Arkansas Territory, and Louisiana, from 1513 to 1543, saw no Buffalo,—they were told that the animal was north of them; however, they frequently met with Buffalo hides, particularly when west of the Mississippi. And Du Pratz, who published in 1758, informs us that at that time the animal did not exist in Lower Louisiana. We know, however, of one author, Bernard Romans, who wrote in 1774, and who speaks of the Buffalo as a benefit of nature bestowed upon Florida. There can be no doubt that the animal approached the Gulf of Mexico, near the Bay of St. Bernard; for Alvar Nunez, about the year 1535, saw them not far from the coast; and Jaater, one hundred and fifty years afterwards, saw them at the Bay of St. Bernard. It is probable that this bay is the lowest point of latitude at which this animal has been found, east of the Rocky Mountains. There can be no doubt of their existence west of those mountains, though Father Venegas does not include them among the animals of California; and although they were not seen west of the mountains by Lewis and Clarke, nor mentioned by Harman and Mackenzie as existing in New California, a country of immense extent, which is included between the Pacific Ocean, the Rocky Mountains, the territory of the United States, and the Russian possessions on the north-west coast of America, yet their existence at present on the Columbia appears to be well ascertained; and we are told that there is a tradition among the natives, that shortly before the visit of our enterprising explorers, destructive fires had raged over the prairies, and driven the Buffaloes east of the mountains. Mr. Dougherty, the very able and intelligent sub-agent, who accompanied the expedition to the Rocky Mountains, and who communicated so much valuable matter to Mr. Say, asserted that he had seen a

few of them in the mountains, but not west of them. It is highly probable that the Buffalo ranged on the western side of the Rocky Mountains, to as low a latitude as on the eastern side. De Laet says, on the authority of Henera, that they grazed as far south as the banks of the river Yaquimi. In the same chapter this author states that Martin Perez had, in 1591, estimated the Province of Cinaloa, in which this river runs, to be three hundred leagues from the city of Mexico.

"Although we may not be able to determine with precision, the southern limits of the roamings of the Buffalo west of the mountains, the fact of their existence there in great abundance is amply settled by the testimony of De Laet, on the authority of Gomara, i. b., c. 17, and of Purchas, p. 778. Its limits to the north are not easier to determine. In Hakluyt's collection we find in the account of Sir Humphrey Gilbert's Voyages, which commenced in 1583, that there are said to be in the Island of Newfoundland, 'Bottolfles, or a beast, it seemeth by the tract and foote, very large, in the manner of an Oxe.' It may, however, be questioned, whether these were not Musk Oxen, instead of the common Buffalo, or Bison, of our prairies. We have no authority of any weight which warrants us in admitting that the Buffalo existed north of Lakes Ontario, Erie, &c., and east of Lake Superior. From what we know of the country between Nelson's River, Hudson's Bay, and the lower lakes, including New South Wales and Upper Canada, we are inclined to believe the Buffalo never abounded there, if indeed any were ever found north of the lakes. But west of Lake Winnepeck, we know that they are found as far north as the 62nd degree of north latitude. Captain Franklin's party killed one on Salt River, about the 60th degree. Probably they are found all over the prairies, which are bounded on the north by a line, commencing at the point at which the 62nd degree meets the base of the Rocky Mountains, and running in a south-easterly direction, to the southern extremity of Lake Winnepeck, which is very little north

of the 50th degree. On the Saskatchewan Buffalo are very abundant. It may be proper to mention here that the small white Buffalo, of which Mackenzie makes frequent mention, on the authority of the Indians, who told him that they lived in the mountains, is probably not the Bison; for Lewis and Clarke inform us that the Indians designated by that name the Mountain Sheep. It is probable that west of the Rocky Mountains the Buffalo does not extend far north of the Columbia. At present it is scarcely seen east of the Mississippi, and south of the St. Lawrence. Governor Cass's party found, in 1819, Buffalo on the east side of the Mississippi, above the Falls of St. Anthony. Every year this animal's rovings are restricted. In 1822, the limit of its wanderings down the St. Peter, was Great Swan Lake, near Camp Crescent." — *Godman's American Natural History.*

THE ELK, OR WAPITI.

Cervus Canadensis; Briss. Cerf du Canada; Perrault, Mém. sur les Anim. ii. 45. *Cervus Major Americanus; Catesby, Carol. App.* ii. 28. *Cervus Strongyloceros; Schreb. Soeugthire. Alces Americanus, [illegible] ibus Teretibus; Jefferson's Virginia,* 98. *The Elk; Lawson; Lawson, New Voyage; Carver, Travels,* 411. *The American Elk; Bewick, Quadrupeds,* 112. *Cervus Wapiti; Barton, Med. and Physical Journ.* iii. 36. *Wapiti; Warden, Descr. des Etats Unis,* v. 368; *Stag. Red Deer, ibid.* 367. *Wapiti; Mitchill, Leach, Fred. Cuvier, Mamif. Lithogr. liv.* 21 c. *Cerf Wapiti; Desm. Mamm. sp.* 664; *Cerf Canadien, ibid. sp.* 665. *Wewaskish, Waskesse, Wawaskeesho; Hearne, Journey, &c.,* 360. *Commonly called Stag, Red Deer, Gray Moose, Wapiti, American Elk, Round-horn Elk, Elk, &c.*

"This stately and beautiful animal we are now to describe, has been, until very recently, confounded with other species of Deer, to which it bears but a slight re-

semblance, and from which it is distinguished by the most striking characteristics. The English name by which it is commonly known, and which we prefer to others, is the same as that given to the Moose in Europe; hence, this species was for a long time considered as a mere variety of the Moose, if not identically the same. A general resemblance to the European stag, caused the same name to be applied to our Elk, and this circumstance led various writers into the error of considering our animal to be a variety of the *Cervus Elaphus*, or common Stag of Europe.

"A reference to the synonyms we have prefixed to this article, will amply suffice to show how great a degree of confusion has hitherto existed upon this subject—a confusion rather increased than diminished by those who have attempted its removal by reconciling the discrepancies of books, instead of appealing to the proper and infallible authority, nature.

"Hearne we believe to be justly entitled to the credit of having insisted upon the specific distinctness of this animal from the Moose, by pointing out the error into which Pennant had fallen, in stating the Waskesse, or Wewaskish, to be of the same species. The description he gives of the Wewaskish sufficiently proves that it was our Elk he described, and the characters he enumerates satisfactorily establishes the specific differences between this animal and the Moose.

"Jefferson, in his valuable Notes on Virginia, without being aware of Hearne's observations, proves very clearly that the Elk of America ought to be regarded as identical neither with the Moose nor Stag of Europe, and proposed for our animal the name of *Alces Americanus*. Subsequently, Dr. E. H. Smith published a very interesting paper in the New York Medical Repository, in which he described three individuals of this species, and gave a still more complete enumeration of their distinctive characters and history.

"It would be as unprofitable as irksome to enter more extensively into the history of the different errors

and changes respecting the classification of this Deer. To us it appears sufficient to declare it to be now fully established that there is but *one* species of American Elk, upon which all the names prefixed, scientific and trivial, have been bestowed. That this species is second in size to the Moose alone, and that in beauty of form, grace and agility of movement, and other attributes of this kind, it is not excelled by any Deer of the old or new world.

"The size and appearance of the Elk are imposing; his air denotes confidence of great strength, while his towering horns exhibit weapons capable of doing much injury when offensively employed. The head is beautifully formed, tapering to a narrow point; the ears are large and rapidly moveable; the eyes are full and dark; the horns rise loftily from the front, with numerous sharp-pointed branches, which are curved forwards, and the head is sustained upon a neck at once slender, vigorous, and graceful. The beauty of the male Elk is still farther heightened by the long forward curling hair, which forms a sort of ruff or beard, extending from the head towards the breast, where it grows short, and is but little different from the common covering. The body of the Elk, though large, is finely proportioned; the limbs are small and apparently delicate, but are strong, sinewy, and agile. The hair is of a bluish-gray colour in autumn; during winter it continues of a dark gray, and at the approach of spring it assumes a reddish or bright brown colour, which is permanent throughout summer.

"The croupe is of a pale yellowish-white or clay colour, and this colour extends about the tail for six or seven inches, and is almost universally found in both sexes. There is no very perceptible difference of colour between the male and female.

"The female, however, does not participate in the 'branching honours' of the male, which are found to attain, in numerous instances, a surprising magnitude. It is not uncommon to see them of four and five feet in

height, and it is said that they are sometimes still higher. Specimens of the largest size may be seen in the cabinets of the Philadelphia Museum, and of the Lyceum of Natural History, New York. These horns are said to consist of three principal divisions: 1st, The brow-antlers, sometimes called 'alters' by the hunters; 2d, The two middle prongs, named 'fighting horns;' and 3d, The shaft, or proper horns. The branches just mentioned are always placed on the front, outside or anterior surface, never on the inner side of the horns, a circumstance which has been indicated as strikingly different from the arrangement of the branches of the horns of the common, or Virginia Deer, hereafter to be described.

"The Elk sheds his horns about the end of February, or beginning of March, and such is the rapidity with which the new horns shoot forth, that in less than a month they are a foot in length. The whole surface of the horn is covered by a soft hairy membrane, which, from its resemblance to that substance is called *velvet*, and the horns are said to be 'in the velvet' until the month of August, by which time they have attained their full size. After the horns are entirely formed, the membrane becomes entirely detached, and this separation is hastened by the animal, who appears to suffer some irritation, or itching, which causes him to rub the horns against trees, &c.

"Almost all who have written upon this species, have dwelt upon the peculiar apparatus, situated beneath the eye, at the internal angle, which the French naturalists call *larmiers* or *sinus lacrymales*. This apparatus is a slit or depression, obliquely placed below the inner angle of each eye, and lined with a naked membrane, which secretes an unctuous matter, not unlike the cerumen or wax of the ear. Dr. Smith, in the paper we have above referred to, says that 'the hunters assure us that the Elk possesses the power, by strictly closing the nostrils, of forcing the air through these apertures in such a

manner as to make a noise which may be heard at a great distance.'

"This, however, is inaccurate; it is true that the Elk, when alarmed, or his attention is strongly excited, makes a whistling noise at the moment that these lacrymal appendages are opened and vibrated in a peculiar manner. But having dissected these appendages in an Elk, recently dead, we are perfectly assured that there is no communication between the nostrll of the animal and these sacs. The bone behind these appendages is cribriform, or reticular, but we could discover no duct nor passage by which air or any fluid could find its way. The peculiar use or importance of this structure is still unknown; it exists in several species of the genus, as already indicated in the generic characters, and nothing but a close and careful examination of these animals in a state of nature will lead us to a correct understanding of their purpose. Barton's notion that 'it seems in these animals to serve the purposes of an auxiliary breathing apparatus, and of an organ of smelling,' is altogether speculation, founded upon a 'conjecture' as to the structure of the sac and its connexion with the nostrils. The Elk has at one period ranged over the greater part, if not the whole, of this continent. Jefferson has stated that he 'could never learn that the Round-horn Elk has been seen farther north than the Hudson River.' But Hearne has described the Wewaskish in such a manner as to leave no doubt of its existence as far north as the vicinity of Cumberland House, in lat. 53 deg. 6 min. Elk are still continually found in the remote and thinly settled parts of Pennsylvania, but the number is small. It is only in the Western wilds that they are seen in considerable heads. They are fond of the green forests, where a luxuriant vegetation affords them an abundant supply of buds and tender twigs; or of the great plains where the solitude is seldom interrupted, and all-bounteous nature spreads an immense field of verdure for their support.

"The Elk is shy and retiring; having acute senses, he receives early warning of the approach of any human intruder.

"The moment the air is tainted by the odour of his enemy, his head is erected with spirit, his ears rapidly thrown in every direction to catch the sounds, and his large dark glistening eye expresses the most eager attention. Soon as the approaching hunter is fairly discovered, the Elk bounds along for a few paces, as if trying his strength or flight, stops, turns half round, and scans his pursuer with a steady gaze, then throwing back his lofty horns upon his neck, and projecting his taper nose forward, he springs from the ground, and advances with a velocity which soon leaves the object of his dread far out of sight.

"But in the season when sexual passion reigns with its wonted influence over the animal creation, the Elk, like various other creatures, assumes a more warlike and threatening character. He is neither so easily put to flight, nor can he be approached with impunity, although he may have been wounded. His horns and hoofs are then employed with great effect, and the lives of men and dogs are endangered by coming within his reach. This season is during August and September, when the horns are in perfect order, and the males appear filled with rage, and wage the fiercest war against each other for the possession of the females. During this season the males are said to make a loud and unpleasant noise, which is compared to a sound between the neighing of a stallion and the bellowing of a bull. Towards the end of May, or the beginning of June, the female brings forth her young, commonly one, but very frequently two in number, which are generally male and female.

"The flesh of the Elk is highly esteemed by the Indians and hunters as food, and the horns, while in their soft state, are also considered a delicacy; of their hides a great variety of articles of dress and usefulness are prepared. The solid portion or shaft of the perfect horn is wrought by the Indians into a bow, which is

highly serviceable from its elasticity, as well as susceptibility of beauty of polish and form. Several of these bows may be seen in the extensive collection of Indian implements belonging to the Philadelphia Museum. The Elk has occasionally been to a certain degree domesticated, and might possibly be rendered as serviceable as the Rein-deer. A pair of these animals, represented in London under the name of Wapiti, were trained to draw in harness, or to bear the saddle, for the amusement of visitors. But these experiments are not sufficient to lead us to conclude that the Elk could be readily substituted for the Reindeer or Horse.

"With what little is known of this species from actual observation, several writers have mingled a great deal of fable, and have repeated the stories of 'hunters,' until they have at length passed for the truth. Thus, we are told of a 'small vesicle,' on the outside of the Elk's hind legs, that contains a thin unctuous matter, which some of our hunters call the 'oil.' Various improbable uses are assigned to this unique and wonderful 'oil-spring,' which it would be lost time to repeat or refute. We have inquired of those who have dissected several of these animals, and have been present at the dissection of one ourselves, but have never been able to discover anything of this 'vesicle.' A friend who had one of these animals for several years living in his possession, states that he never detected the presence of any such apparatus or oil. Until better proof be given than has yet been offered, we shall feel willing to rank the stories among the 'conjectures which have been too often resorted to when there was a scarcity or difficulty of obtaining facts.'

"We have already adverted to the warlike disposition of the Elk during a particular season, but it may not be amiss to add, that at all times, this animal appears to be more ready to attack with his horns than any other species of Deer we have examined. When at bay, and especially if slightly wounded, he fights with great eagerness, as if resolved to be avenged. The fol-

lowing instance from Long's Expedition to the Rocky Mountains, will in some degree illustrate this statement:—

"A herd of twenty or thirty Elk were seen at no great distance from the party, standing in the water, or lying upon the sand beach. One of the finest bucks was singled out by a hunter, who fired upon him; whereupon, the whole herd plunged into the thicket and disappeared. Relying upon the skill of the hunter, and confident that his shot was fatal, several of the party dismounted and pursued the Elk into the woods, where the wounded buck was soon overtaken. Finding his pursuers close upon him, the Elk turned furious upon the foremost, who only saved himself by springing into a thicket which was impassable to the Elk, whose enormous antlers becoming so entangled in the vines as to be covered to their tips, he was held fast and blindfolded, and was despatched by repeated bullets and stabs."—*Godman's American Natural History.*

THE MOOSE.

Cervus Alces; L. Alces Achlis; Plin. Ald. Gesve. Jonst. Original; Charlev. Nouv. France, iii. 126. *Elan; Buff. Hist. Nat.* xii., *sup.* vii. *Elk; Shaw, Ged. Zool.* ii., part 2, 174. *Moose Deer; Dudley, Phil. Trans.* No. 444—*Warden, Descript. des Etats Unis,* v., p. 636. *Elk; Penn. Hist. Quad.* No. 42. *Moose; Ib. Arct. Zool.* i., No. 3, p. 18.

The Moose—this appellation is derived from *Musu,* the name given to the animal by the Algonquins—is, perhaps, the only Deer whose general appearance can be called ungraceful, or whose proportions at first sight impress the beholder unfavourably. Its large head terminates in a square muzzle, having the nostrils curiously slouched over the sides of the mouth; the neck, from which rises a short thick mane, is not longer than

the head, which in males is rendered still more cumbrous and unwieldy by wide palmated horns; under the throat is found an excrescence, from which grows a tuft of long hair; the body, which is short and thick, is mounted upon tall legs, and the whole aspect is so unusual, that incidental observers are pardonable for considering it ugly. Yet, as these singularities of structure have direct or indirect reference to peculiarities of use, an inquiry into the mode of life led by this species, may cause us to forget, in admiration of its adaptation to circumstances, prejudices excited by the comparative inelegance of its form.

"The Moose inhabits the northern parts of both continents; it is in Europe called 'Elk.' On the American continent it has been found as far north as the country has been fully explored. Its southern range, at former periods, extended to the shores of the great Lakes, and throughout the New-England States. At present it is not heard of south of the state of Maine, where it is becoming rare. In Nova Scotia, the Isle of Breton, the country adjacent to the Bay of Fundy, and throughout the Hudson's Bay possessions, the Moose is found in considerable numbers.

"The dense forests, and closely-shaded swamps of these regions, are the favourite resorts of this animal, as there the most abundant supply of food is to be obtained with the least inconvenience. The length of limb, and shortness of neck, which in an open pasture appear so disadvantageous, are here of essential importance in enabling the Moose to crop the buds and young twigs of the birch, maple, or poplar; or should he prefer the aquatic plants, which grow most luxuriantly where the soil is unfit to support other animals, the same length of limb enables him to feed with security and ease. We cannot avoid believing that the peculiar lateral and slouching position of the nostrils is immediately connected with the manner in which the Moose browses. Their construction is very muscular, and seems very well adapted for seizing and tearing off the

twigs and foliage of trees, and conveying them to the mouth; it may also be designed to prevent the sense of smell from being at any time suspended by the prehension of food. The probability of this last suggestion is strengthened by the fact, that the Moose is endowed with an exquisite sense of smell, and can discover the approach of hunters at very great distances. When obliged to feed on level ground, the animal must either kneel, or separate the legs very widely. In feeding on the sides of acclivities, the Moose does so with less inconvenience by grazing from below upwards; the steeper the ground may be, so much the easier it is for this species to pasture. Yet, whenever food is to be procured from trees and shrubs, it is preferred to that which is only to be obtained by grazing. The Moose, like his kindred species, is a harmless and peaceful animal, except in the season when the sexes seek each other; then the males display a fierceness and pugnacity, which forms a strong contrast to their ordinary actions. Were they only examined during such seasons, the character of the species would be entirely misconceived. Under the influence of this powerful, though temporary excitement, the males battle furiously with each other, and resist the aggressions of man himself with vigour and effect.

"In the summer, the Moose frequents swampy, or low grounds, near the margins of lakes aud rivers, through which they delight to swim, as it frees them from the annoyance of the insects. They are also seen wading out from the shores, for the purpose of feeding on the aquatic plants which rise from the water. At this season they regularly visit the same place, in order to drink, of which circumstance the Indian hunter takes advantage to lie in ambush, and secure the destruction of the Deer. At such drinking-places, as many as eight or ten pairs of Moose horns have been picked up.

"During the winter the Moose, in families of fifteen or twenty, seek the depths of the forest for shelter and food. Such a herd will range thoughout an extent of

about five hundred acres, subsisting upon the mosses attached to the trees, or browsing the tender branches of saplings, especially of the trees called *Moose-wood.* The Indians name parts of the forest thus occupied Moose-yards.

"In Nova Scotia, New Brunswick, and the Island of Grand Manan, the Moose is generally hunted in the month of March, when the snow is deep, and sufficiently crusted with ice to bear the weight of a dog, not that of a Moose, as has been stated. Five or six men, provided with knapsacks, containing food for as many days, and all necessary implements for building their 'camp' at night, set out in search of a Moose-yard. When they have discovered one, they collect their dogs, and encamp for the night, in order to be ready to commence the chace at an early hour, before the sun softens the crust upon the snow, which would be the means of retarding the dogs, and facilitating the escape of the Deer. At daybreak, the dogs are laid on, and the hunters, wearing large snow-shoes, follow as closely as possible. As soon as the dogs approach a Moose, they assail him on all sides, and force him to attempt his escape by flght. The Deer, however, does not run far, before the crust on the snow, through which he breaks at every step, cuts his legs so severely, that the poor animal stands at bay, and endeavours to defend himself against the dogs, by striking at them with his fore-feet. The arrival of the hunter within a convenient distance soon terminates the combat, as a ball from his rifle rarely fails to bring the Moose down.

"Judging by the rapid diminution of this species within a comparatively few years, it is to be feared that it will, at no great distance of time, be exterminated. The Moose is easily tamed, although of a wild and timid disposition; sometimes when taken very young, they are domesticated to a remarkable degree. We are informed by our friend, Mr. Vanbuskirk, of New Brunswick, that he knew of one which was taken when two days old, by an Indian, and presented to a gentle-

man in Nova Scotia. The proprietor allowed it to suck a cow for three months, and afterwards fed it with different vegetables, until it was a year old. This Moose displayed a singular animosity against one of the young ladies of the family, and would chase her with fierceness into the house. When the door was closed in time to exclude him, he would immediately turn round and kick violently against it.

"The horns of the Moose spread out almost immediately from their base into a broad palmation; in old animals they increase to a great size, and have been known to weigh fifty-six pounds, each horn being thirty-two inches long. The horns are generally cast in the month of November; the Indians employ them for various purposes, cutting them into spoons, scoops, &c.

"When chased, the Moose throws his horns towards his neck, elevates his nose and dashes swiftly into the thickest of the forest; occasionally the horns prove the means of his destruction, by becoming entangled among vines, or caught between small trees. Where the Moose runs over a plain, he moves with great celerity, although his gait is nothing better than a long shambling trot; this, however, is rendered very efficient by the great length of his limbs. While running in this manner, the divisions of the hoofs, which are very long, separate as they press the ground, and close together as they are raised, with a clattering sound, which may be heard to some distance. This circumstance is also remarked in the Rein-deer.

"Notwithstanding the ease and swiftness of their movements, they would be easily captured, if pursued by horsemen and hounds, in a country adapted to such a chase, as they are both short-breathed and tender-footed.

"The acuteness of their sense of hearing, which is thought to be possessed by the Moose in the greatest degree of perfection, together with the keenness of their smell, renders it very difficult to approach them. The Indians attempt it by creeping among the trees

and bushes, always keeping to the leeward of the Deer. In summer, when they resort to the borders of lakes and rivers, the Indians often kill them whilst crossing the streams, or when swimming from the shore to the islands. 'They are,' says Hearne, 'when pursued in this manner, the most inoffensive of all animals, never making any resistance; and the young ones are so simple that I remember to have seen an Indian paddle his canoe up to one of them, and take it by the poll without the least opposition; the poor, harmless animal seeming at the same time as contented alongside of the canoe, as if swimming by the side of its dam, and looking up in our faces with the same fearless innocence that a house-lamb would, making use of its fore foot almost every instant to clear its eyes of mosquetoes, which at that time were remarkably numerous.'

"The flesh of the Moose, though greatly coarser and tougher than other venison, is esteemed excellent food, and the Indians, hunters, and travellers, all declare they can stand more fatigue while fed on this meat than while using any other. The large and gristly extremity of the nose is accounted an epicurean treat, and the tongue of the animal is also highly prized, notwithstanding it is not commonly so fat and delicate as the tongue of the common Deer. As the Moose feeds upon the twigs, buds and small branches of the willow, birch, poplar, mosses, aquatic plants, &c., its flesh must be peculiarly flavoured. The fat of the intestines is hard like suet, but all the external fat is soft, like that of a breast of mutton, and when put into a bladder is as fine as marrow. In this they differ from all other species of Deer, of which the external fat is as hard as that of the kidneys.*

"The female Moose never has any horns; they bring forth their young, 'from one to three in number, in the latter end of April or beginning of May.'† The male Moose often exceeds the largest Horse in size and bulk;

* Hearne. † Ibid.

the females are much less than the males and differently coloured. The hair of the male is long and soft, like that of the common Deer; it is black at tip, but within it is of a common ash colour, and at the base pure white. The hair of the female is of a sandy-brown colour, and in some places, especially under the throat, belly, and flank, is nearly white at tip, and altogether so at base.

"The skin of the Moose is of great value to the Indian, as it is used for tent covers, clothing, &c.

"The Moose, like other Deer inhabiting the northern regions, is exceedingly annoyed by insects, which not only feast upon its blood, but deposit their eggs in different parts of its body, along the spine, within the cavities of the nose, mouth, &c. These eggs, when hatched, form large larvæ, or maggots, that feed on the parts within which they are placed, until ready to assume their perfect or winged condition, when they perforate the skin and take flight. So great a number of such perforations are made at certain seasons that the skins of the Moose are rendered worthless to the hunter unless it be for the purpose of cutting them into thongs for nets, and other uses." — *Godman's American Natural History.*

THE REIN-DEER—VULGO, CARIBOO.

Cervus Tarandus: Lin. Syst., p. 93. *Cariboo of the old French writers. Cervus Tarandus; Harlan's Fauna Americana*, p. 232; *Godman's Am. Nat. Hist.*, vol. ii., p. 283; *Richardson, F. B. A.*, vol. i., p. 238; *Emmons, Mass. Report*, 1840, p. 78.

"*Characteristics.*—Varying in colour from deep brown to grayish-white. About the size of the common Deer.

"*Description.*—Body robust, and low on the legs; snout thin, with oblique nostrils; ears large; horns

usually slender, very variable in form,—they generally consist of brow antlers, which are palmate and digitate, the main stem directed backward, then curving forward, with simple or palmated antlers, or else terminating in a broad, palmated expansion, which is often furnished with points; legs robust; hoofs rounded, consisting of a single plate folded on itself very broad, with a strong fringe of hairs around it; fur close and compact, but composed of two portions, one woolly, the other longer, straight, and brittle.

"*Colour.*—Varying with age and season. Young, brownish above, with a tinge of reddish beneath. Adults in the summer, in a smooth coat of grayish-brown, becoming rougher and whiter in winter; beneath, the throat, belly, and insides, white at all seasons.

"It is with much hesitation that I include this animal in the Fauna of our State; but the representations of hunters lead me to suspect, that when the yet unexplored parts of the State have been more thoroughly examined, its existence may be disclosed. Pennant, in his time, asserted that the Rein-deer was not found farther south than the most northern part of Canada. Charlevoix, however, saw one killed at Quebec. The specimen in the cabinet of the Medical College at Albany, came from Nova Scotia; and Harlan asserts that it does not pass the State of Maine into the United States, implying its existence there. Professor Emmons observes, 'It is only a few years since this animal appeared in the northern parts of Vermont and New Hampshire, from which it is not unreasonable to infer, that in earlier times it may have passed still farther south.' Its gregarious habits, and unsuspicious character, would seem to ensure its speedy destruction, when placed within the range of man."—*De Kay's Natural History of New York.*

THE AMERICAN DEER.

Cervus Virginianus. Dama Virginiana; Ray, Lyn. Quad., p. 86. *Cervus Virginianus; Harlan, Fauna Amer.*, p. 239; *Godman, Am. Nat. Hist.*, vol. ii., p. 306. *Mazama Id.; Hamilton Smith, Griffith's Cuv.*, vol. iv., p. 127, and vol. v., p. 315. *Cervus (Mazama) Mexicanus et Claratus; Hamilton Smith*, ib., p. 315. *Fallow Deer; Emmons, Mass. Reports*, 1840, p. 81.

"*Characteristics.*—Reddish or bluish-gray, according to the season. Young, spotted with white; horns moderate, curving forward, with the concave part in front, with from one to six points, occasionally palmated.

"*Description.*—Head long and slender; muzzle pointed; eye large and lustrous, the lachrymal pits consisting of a slight fold of the skin; tail moderate, depressed; legs slender; a glandular pouch concealed by a thick tuft of rigid hairs inside of the hind legs, odoriferous, and connected with the sexular appetite. The horns of the adult male vary so much in shape, that scarcely any two are alike, appearing to depend upon age, season, and abundance or scarcity of food. In the first season they are simple, cylindrical, and pointed, and in this state they are known as *Spike Bucks;* in the following season they have a short and straight antler, and the number increases until the fourth season, when the following is the most usual conditions of the horns. The main stem rises upward and laterally, and then makes a broad curve forward, with the tips turned inward and downward; on the inner, and slightly anterior surface of the main stem, arises a short brow antler, directed forward and upward; the stem, thus far, is roughened by nodosities and furrows; above this, a branch is thrown off from the

interior, or anterior, curving inwards and forwards, and occasionally another branch before reaching the tip. These first and second branches are occasionally themselves bifurcated; and in one before me now, the horns exhibit six tips on one side, including those of the brow antlers; and on the other nine, the first branch being bifid, the second trifid, the third simple, and the extreme tip itself bifid. When the horn is palmated, the flattening occurs at the origin of the first branch. In many specimens there is only the brow antler, and a single branch alone. Fur, composed of flattened angular hairs, lying smooth upon the body.

"*Colour.*—Bluish-gray in the autumn and winter; dusky reddish, or fulvous, in the spring; becoming bluish in the summer. The fawns are irregularly spotted with white. The gray, or reddish colour in the adult, extends over the whole head, back, sides, and upper part of the tail; a few white hairs often observed on the rump, at the origin of the tail. Beneath the chin, throat, belly, and inside of legs, and underside of tail, always white; ears margined with dark brown, and often with white hairs within,—and a white circle round the eyes; hoofs jet black. Total length (average), sixty-eight inches; length of tail, including hairs, six inches; height of ears, four inches.

"This well-known animal is still found in almost every part of the State where there is sufficient forest to afford them food and cover. From the mountainous regions of Orange, Rockland, and Delaware, the city market is supplied in great abundance during the winter. In the most northerly counties, they are not numerous; and in other counties, the united attacks of Men and Wolves are daily decreasing their number. Under the article *Wolf*, we have shown how destructive the Wolves are to Deer. In some insulated districts, as on Long Island, where the Wolf has been extirpated, and the Deer are placed under the protection of the laws during the breeding-season, although more than

a hundred are annually killed by the sportsman, yet it is believed their number is actually on the increase.*

"The Deer has one and occasionally two fawns at a birth, which in the southern part of the State occurs in May and June; in the northern districts, somewhat earlier. In the bulling season, the males are restless and bold, and are observed to have the neck considerably swelled. When alarmed, they stamp quickly and often on the ground, and emit a sound like a shrill whistle, which may be heard at a great distance. When mortally wounded, they give a faint bleat like that of a calf. When brought to bay, it throws off its habitual timidity; its eyes glare fiercely around, every hair on its body bristles up, and appears as if directed forward, and it dashes boldly upon its foe. Its horns are cast usually in the winter, but the period appears to depend much on the latitude, mildness or severity of the season. While growing, the horns are covered with a velvet-like membrane, which peels off as soon as they have obtained their growth. It has often been a matter of surprise, that while so many horns are annually cast, so few are ever found. This is to be explained by the fact, that as soon as shed, they are eaten up by the smaller gnawing animals. I have repeatedly found them half-gnawed up by the various kinds of field-mice so numerous in our forests.

"The Deer is an exceedingly useful animal, not only as furnishing an excellent article of food to the settlers in frontier countries, where it would be impracticable to obtain any other meat, but also as furnishing the buckskin of commerce. It feeds on buds and twigs of trees, shrubs, berries, and grapes. It appears to be particularly fond of the buds and flowers of the pond lily.

* By the present law of the State, Deer are only permitted to be killed between the 1st of August and 1st of January ensuing. So many Does, however have been lately killed, with young, in December, in the southern parts of the State, that at this season, (1842,) the project of a law has been introduced, to allow Deer to be killed in certain counties only, in the months of September, October, and November.

"It ranges from Canada to the Gulf of Mexico, and probably still farther South. I saw two Deer alive from Campeachy, which were exhibited as Mexican Deer, but offered no distinctive characters from those of our common Deer. It is found throughout the West to the Rocky Mountains.* It does not appear to extend into Canada."—*De Kay's Natural History of New York.*

THE BLACK-TAIL DEER.

Cervus Macrotis. The Black-tailed Fallow Deer; Lewis and Clarke; i., p. 30; *Mule Deer; ibid.* ii. 166. *Cervus Auritus; Warden, Descr. des Etats Unis,* v. 640. *Cervus Macrotis; Say, Long's Expedition to the Rocky Mountains,* ii., 88. *Commonly called Mule Deer.*†

"The first indication of this fine Deer was given by Lewis and Clarke, who found it on the sea-coast and plains of Missouri, as well as upon the borders of the Kooskoose River, in the vicinity of the Rocky Mountains. They inform us that the habits of this animal are similar to that of its kindred species, except that it does not run at full speed, but bounds along, raising every foot from the ground at the same time. It is found sometimes in the woodlands, but most frequently is met with in prairies and in open grounds. Its size is rather greater than that of the common Deer —*C. Virginianus*—but its flesh is considered inferior to the flesh of that species.

"According to Say's description, the horns are slightly grooved and tuberculated at base, having a small branch near thereto, resembling in situation and direction the first branch on the horn of the common

* This is a strange blunder. It is *most* abundant both in Upper and Lower Canada.

† "We avoid this name, because it leads to an incorrect notion of the animal. The resemblance of its ears to those of the Mule gave origin to the name."

Deer. The front line of the antler is curved like that of the common Deer, but not to so great a degree, and at about the middle of the entire length of the antlers, they bifurcate equally, each of these processes again dividing near the extremity, the posterior being somewhat the shortest. The ears are very long, being half the length of the whole antler, and extending to its principal bifurcation.

"The eye is larger than that of the common Deer, and the subocular sinus much larger. The hair is coarse, undulated, and compressed, resembling that of the Elk—*C. Canadensis*—and is of a light reddish-brown colour above. The sides of the hair on the front of the nose is of a dull ash colour, that on the back is mixed with blackish-tipped hairs, which forms a distinct line on the neck, near the head. The hoofs are shorter and wider than those of the common Deer, and more like those of the Elk."—*Godman's American Natural History.**

"* The following measurements are given by Say in the work above quoted: Length from the base of the antlers to the origin of the nasal process, two inches. Of the nasal process, two and a half. From the nasal process to the principal bifurcation, four to five. Thence to the other two bifurcations, respectively, four and a half to five and a half. Of the posterior branch, two and a half to three. From the anterior base of the antlers to the tip of the upper jaw, nine and a quarter. From the base of the antler to the anterior canthus, three. Of the ears, more than seven and a half. Of the trunk of the tail, four. Of the hair at the tip of the tail, from three to four."

THE AMERICAN ANTELOPE, OR THE PRONG-HORN.

Antilope Americana.—Antelope; Lewis and Clarke, i., 75, 208, 369; ii., 169. *Antilope Americana; Ord. Guthrie's Geography, Philad. edition*, 1815. *Antilocapra Americana; Ibid.; Journal de Physique*, 1818, *Say.—Long's Expedition to the Rocky Mountains*, i., 363, 485. *Antilope Furcifer; Smith, Trans. of Linnæan Soc.*, xiii., pl. 2. *Prong-horned Antelope; Sab. App.*, p. 667.

"Our adventurous countrymen, who led the first expedition across the Rocky Mountains, were the first to call attention to this beautiful animal, and the first to call it by its true name.

"Notwithstanding the obviousness of all the other characters, the circumstance of its having an offset or prong to its horns, kept *nomenclators* for years undecided as to what place it should occupy in their arrangements, and gave them an opportunity, by which they have not failed to profit, of multiplying *words* and *republishing* their own names, if they made no addition to our information on the subject. All that has been related concerning this animal, which is worth repeating or remembering, was published in Lewis and Clarke's narrative above quoted, and has since been confirmed by the observation of Dr. Richardson, appended to Franklin's Journey to the Polar Sea. Leaving to the nomenclators their disputations about what De Kay has happily called 'the barren honours of synonyme,' we shall glean the few facts contained in the narrations of the above-mentioned accurate observers of nature.

"The Prong-horn Antelope is an animal of wonderful fleetness, and so shy and timorous as seldom to repose, except on ridges which command a view of the surrounding country. The acuteness of their sight and the exquisite delicacy of their smell, renders it exceedingly

difficult to approach them; and when once the danger is perceived, the celerity with which the ground is passed over, appears to the spectator to resemble the flight of a bird rather than the motion of a quadruped.

"In one instance, Captain Lewis, after various fruitless attempts by winding around the ridges, succeeded in approaching a party of seven that stood upon an eminence towards which the wind was unfortunately blowing. The only male of the party frequently encircled the summit of the hill, as if to announce any danger to the group of females which stood upon the top. Before they saw Captain Lewis, they became alarmed by the scent, and fled while he was at the distance of two hundred yards. He immediately ran to the spot where they had stood; a ravine concealed them from him, but at the next moment they appeared on the second ridge, at a distance of three miles. He could not but doubt whether these were the same he had alarmed, but their number and continued speed, convinced him they were so, and he justly infers that they must have run with a rapidity equal to that of the most celebrated race-horse.

"Yet, notwithstanding the keenness of their senses, and surprising velocity of their course, the Pronghorned Antelope is often betrayed to his destruction by curiosity. When the hunter first comes in sight, his whole speed is exerted, but if his pursuer lies down and lifts up his hat. arm or foot, the Antelope trots back to gaze at the object, and sometimes goes and returns two or three times, until it comes within reach of the rifle. This same curiosity occasionally enables the Wolves to make them a prey; for sometimes one of them will leave his companions, to go and look at the Wolves, which, should the Antelope be frightened at first, crouch down, repeating the manœuvre, sometimes relieving each other, until they succeed in decoying it within their power, when it is pulled down and devoured. But the Wolves more frequently succeed in taking the Antelope when they are crossing the rivers, as they are

not good swimmers. 'The chief game of the Shoshonees,' says Lewis and Clarke, 'is the Antelope, which, when pursued, retreats to the open plains, where the horses have full room for the chase. But such is its extraordinary fleetness and wind, that a single horse has no possible chance of outrunning it, or tiring it down; and the hunters are obliged therefore to resort to stratagem. About twenty Indians, mounted on fine horses, armed with bows and arrows, left the camp; in a short time they descried a herd of ten Antelopes; they immediately separated into squads of two or three, and formed a scattered circle round the herd, for five or six miles, keeping at a wary distance, so as not to alarm them until they were perfectly inclosed, and usually selecting some commanding eminence as a stand. Having gained their positions, a small party rode towards the herd, and with wonderful dexterity the hunter preserved his seat, and the horse his footing, as he ran at full speed over the hills and down the steep ravines, and along the borders of the precipices. They were soon outstripped by the Antelopes, which, on gaining the other extremity of the circle, where driven back and pursued by the fresh hunters. They turned, and flew, rather than ran, in another direction; but there too they found new enemies. In this way they were alternately pursued backwards and forwards, till at length, notwithstanding the skill of the hunters—who were merely armed with bows and arrows—they all escaped; and the party, after running for two hours, returned without having got one and their horses foaming with sweat.

"'This chase, the greater part of which was seen from the camp, formed a beautiful scene, but to the hunters it is exceedingly laborious, and so unproductive, even when they are able to worry the animal down, and shoot him, that forty or fifty hunters will sometimes be engaged for more than half a dry, without obtaining more than two or three Antelopes.'

"The Prong-horn is found in the vicinity of Carlton-house during the summer, and is usually called a *Goat*

by the Canadians. The Creek Indians call them *Apestachoekoos*. Lewis and Clarke saw the animal very frequently during their journey to the mouth of the Columbia River, though they were fewer on the plains of Columbia, than on the eastern side of the Rocky Mountains. Great numbers of these animals were seen by Lewis and Clarke, in the month of October, near Carp Island, in the Missouri, where large flocks of them were driven into the water by the Indians. The men were ranged along the shore, so as to prevent the escape of the Antelopes, and fired upon them; and sometimes the boys went into the river, and killed them with sticks. Fifty-eight of the Antelopes were killed by the Indians during the time they were observed by our travellers. They were then migrating from the plains east of the Missouri, where they spend the summer, towards the mountains, where they subsist on leaves and shrubbery, during the winter; in the spring they resume their migrations.

"The Mandan Indians capture the Prong-horn Antelopes by means of a pound, similar to that described in the account of the Rein-deer. The following description is given by Dr. Richardson, from a recent specimen:—'The male is furnished with short, black, roundish, tapering horns, arched inwards, turning towards each other, with their points directed backwards, each horn having a single short branchlet projecting from the middle. The winter coat consists of coarse, round, hollow hairs, like those of the Moose. The neck, back, and legs are yellowish-brown; the sides are reddish-white; the belly and chest are white, with three white bands across the throat. The hairs on the occiput and back of the neck are long, and tipped with black, forming a short erect mane. There is a black spot behind each cheek, which exhales a strong Goat-like odour. The tail is short; on the rump there is a large spot of pure white. The dimensions of the animal were as follows: From the nose to the root of the tail, four feet; height of the fore shoulder, three feet; that of the hind quar-

ter, the same. Girth behind the fore legs, two feet ten inches. The female is smaller than the male, having straight horns, with rather a protuberance than a prong. She is also deficient in the black about the neck."—*Godman's American Natural History.*

"An Antelope was killed in Southern Oregon, near Rogues River, which was one of the four the hunters had seen; it was of a dun and white colour, and its hair was remarkably soft. The Indians take this animal by exciting its curiosity; for this purpose they conceal themselves in a bush, near its hunting-grounds, and, making a rustling noise, soon attract its attention, when it is led to advance towards the place of concealment, until the arrow pierces it.

"If there are others in company, they will frequently remain with the wounded, until they are all in like manner destroyed.

"This species of Antelope, according to the hunters, only inhabit the prairie, being seldom seen even in the open wooded country. The flavour of the meat was thought to be superior to that of the Deer."—*United States Exploring Expedition, Lieut. Wilkes.*

ROCKY MOUNTAIN GOAT.

Capra Montana. Ovis Montana; Ord. Guthrie's Geography, Philad. edit., 292–309; *ibid., Journ. Acad. Nat. Sciences*, part i., p. 8. *Rupicapra Americana; Blainville. Antilope Americana; ibid. Bullet. de la Société Philomathique*, p. 80. *Antilope Lanigera; Smith, Trans. Linnæan Society*, xiii. *Commonly called Rocky Mountain Sheep.*

"This animal, concerning which very little is known, is stated by Major Long, in his communication to the Philadelphia Agricultural Society, to inhabit the portion of the Rocky Mountains, situate between the forty-eighth and sixty-eighth parallels of north latitude.

By Lewis and Clarke it was observed as low as forty-five degrees north. They are in great numbers about the head waters of the north fork of Columbia River, where they furnish a principal part of the food of the natives. They also inhabit the country about the sources of Marais, or Muddy River, the Saskatchawan, and Athabasca. They are more numerous on the western than on the eastern slope of the Rocky Mountains, but are very rarely seen at any distance from the mountains, where they appear to be better suited to live than elsewhere. They frequent the peaks and ridges during summer, and occupy the valleys in winter. They are easily obtained by the hunters, but their flesh is not much valued, as it is musty and unpleasant; neither do the traders consider their fleece of much worth. The skin is very thick and spongy, and is principally used for making mocassins.

"The Rocky Mountain Goat is nearly the size of a common Sheep, and has a shaggy appearance, in consequence of the protrusion of the long hair beyond the wool, which is white and soft. Their horns are five inches long, and one in diameter, conical, slightly curved backwards, and projecting but little beyond the wool of the head. The horns and hoofs are black.

"The first indication of this animal was given by Lewis and Clarke; and it is much to be regretted that so little is still known of the manners and habits of this species. The only specimen preserved entire, that we know of, is that figured by Smith in in the Linnæan Transactions. The fineness of the wool of this animal may possibly hereafter induce persons, who have it in their power, to make some exertions to introduce this species among our domestic animals. It is said that the fleece of this Goat is as fine as that of the celebrated Shawl Goat of Cashmere.

"SHEEP; OVIS.

"*Generic Characters.*—The outline of the face is arched, or convex, and the mouth has no muzzle; the

ears are pointed, and of middling length; the horns, which are transversely wrinkled, large and triangular, are twisted laterally into a spiral, and have no osseous cone, of a cellular or cancellar structure. The limbs are slender, and covered with uniform short hair; the tail is short, curved downwards, or pendulous. Neither subocular sinus, beard, nor inguinal pores exist in this genus."—*Godman's American Natural History.*

THE AMERICAN BLACK BEAR.

Ursus Americanus. Ursus Americanus; Pallas, Spicileg. Zool., vol. xiv., p. 6. *Ursus Americanus; Harlan, Fauna*, p. 51; *Godman, Am. Nat. Hist.*, vol. i., p. 114. *Black Bear; Penn. Arct. Zool.*, vol. i., p. 57. *Ours Gulaire; Geoffroy, Mem. Mus.* (variety.) *The Black Bear; Emmons, Mass. Rep.*, 1840, p. 20.

"*Characteristics.*—Black or brownish-black; a soiled brown of yellowish patch on each side of the nose. Facial outline somewhat arched. Young, with hair wavy or curled.

"*Description.*—Ears high, oval, rounded at the tips, and distant. Soles of the feet short; the hair projects slightly beyond the claws. Fur long, straight, shining and rather soft. Tail very short. Claws short, blunt, somewhat incurved.

"*Colour.*—Beside the general black colour of the body, which is occasionally light brown, verging in some instances into soiled yellowish, the sides of the nose are of a fawn colour; occasionally a white dash on the forehead or throat, and sometimes a small spot of the same is seen above the eyes. Length from four to six feet.

"The Bear, once so numerous in this State, is now chiefly to be found in the mountainous and thinly inhabited districts, where they breed. The female, after a gestation of about one hundred days, brings forth two cubs. It does not eat animal food from choice, and

never unless pressed by hunger; it prefers berries and fruits. In the forests in the northern parts of the State, a tornado will sometimes sweep through a region, prostrating the pines to an extent of many miles. In the course of a few years, the wild-cherry tree springs up in great numbers in this tract; and in the fruit season, it becames the resort of numerous bears.* It also feeds on whortleberry, grapes, honey, persimons—*diospyros*—and roots of various kinds. Its fondness for sweet things is evident whenever it enters an apple-orchard, invariably selecting the sweetest kinds. It will also devour eggs, insects, small quadrupeds and birds; but when it has abundance of its favourite vegetable food, will pass the carcass of a Deer without touching it. The Bear is an imitative animal; and hence, when it meets a man, it will rise on its hind legs, but is apparently soon satisfied with the comparison, and endeavours to make its escape. It is a great traveller, and when pursued by tracking, has been known to perform long journeys. It never makes immediately for its retreat, but approaches it in a circling manner. A Bear was started near Schroon some years since, and after a chase of eighteen days, was finally killed. Although seldom seen during the chase, yet he appeared to be fully aware that he was an object of pursuit, and the worn and lacerated condition of his feet testified to his exertions to escape. They are numerous along the borders of the Saranac, and in the mountainous regions of Rockland and Greene. Occasionally they invade the enclosures of the farmer, in search of potatoes and Indian corn. Their depredations are, however, speedily checked; for they are timid, and will never attack a man, unless previously wounded, or in defence of their

* "The effects of such a tornado we observed in Hamilton County, in the summer of 1840, near the Eighth Lake. The course of the *windfall*, as it is popularly called, was from west to east. It extended thirty miles, with a breadth varying from half a mile to two miles. This occurred fifteen years ago. It has been subsequently burned over, and abounds in poplar, white birch, wild cherries, wild raspberries, &c., which attracted to this district great numbers of Deer and numerous Bears.

young. Some of the hunters imagine that there are two varieties of the common Black Bear, viz., the short-legged and the long-legged; but others inform me that the difference is owing entirely to the fact that some are fatter and more robust, which produces an apparent difference in the length of their legs.

"The Yellow Bear of Carolina. and the Cinnamon Bear of the northern regions, are varieties of this species. In this State, they retire with the first fall of snow, to caverns, or to the hollow of some decayed tree, or beneath a prostrate tree, during the winter, and pass three or four months in a state of torpidity. In some southern latitudes, the hybernation is of shorter duration, and ceases to occur when the mildness of the winter enables them to procure food. They are fat when they enter their winter quarters, and much emaciated when they leave it in the spring. Indeed, this condition of fatness is so necessary, that when the supply of foot is cut off, instead of retiring to winter quarters, they migrate southwardly to warmer regions. Hence great numbers are occasionally known to enter our territory from the North, composed entirely of lean males, or females not with young.

"The flesh of the bear is savory, but rather luscious, and tastes not unlike pork. It was once so common an article of food in New-York as to have given the name of *Bear-market* to one of the principal markets in the city. The female goes with young seven months, bringing forth two young in February or March. The oil sells for one dollar per pound, and the skin from four to twelve dollars, according to its value.

"A very large individual was shot on the Kaaterskill Mountains, Greene County, during the winter of 1839. It measured six feet and a half from the nose to the tip of the tail; and at the fore shoulders measured three feet two inches from the ground."—*Dekay's Natural History of New York.*

THE GRIZZLY BEAR.

Ursus Horribilis; Say, Long's Expedition to the Rocky Mountains, vol. ii. *Ursus Cinereus; Desm. Mam.,* p. 164. *Ursus Ferox; the Grizzly, White, Variegated, and Brown Bear of Lewis and Clarke.*

"This Bear, justly considered as the most dreadful and dangerous of North American quadrupeds, is the despotic and sanguinary monarch of the wilds over which he ranges. Gigantic in size and terrific in aspect, he unites to a ferociously bloodthirsty disposition a surpassing strength of limb, which gives him undisputed supremacy over every other quadruped tenant of the wilderness, and causes man himself to tremble at his approach, though possessed of weapons unknown to any but the human race. To the Indians the very name of Grizzly Bear is dreadful, and the killing of one is esteemed equal to a great victory; the white hunters are almost always willing to avoid an encounter with so powerful an adversary, and seldom or never wantonly provoke his anger.

"This formidable animal unhesitatingly pursues and attacks men or animals, when excited by hunger or passion, and slaughters indiscriminately every creature whose speed or artifice is not sufficient to place them beyond his reach.

"However singular it may appear that an animal endowed with such a fondness for destruction and blood, can exist altogether on vegetable food, it is a fact that the Grizzly Bear, no less than all other species belonging to the same genus, is capable of subsisting exclusively on roots and fruits; this may be inferred from the peculiarity of their dentition. It is by no means surprising that hunters and travellers should suppose the Grizzly Bear to be almost wholly carnivorous, seeing that he displays such an unappeasable ferocity of dispo-

sition, and so uniform an eagerness to destroy the life of any animal that falls within his power.

"This Bear at present inhabits the country adjacent to the eastern side of the Rocky Mountains, where it frequents the plains, or resides in the copses of wood which skirt along the margin of water-courses. There is some reason to believe that the Grizzly Bear once inhabitated the Atlantic regions of the United States, if we may be allowed to form any inference from traditions existing among the Delaware Indians, relative to the Big Naked Bear which formerly existed on the banks of the Hudson. The venerable Heckewelder informs us that Indian mothers used to frighten their children into quietness by speaking to them of this animal.

"Notwithstanding it was mentioned a long time since by La Hontan and other writers, it has been but recently established as a distinct species in the works of systematic zoologists. Say was the first to give a full description of it, in the well-known work we have quoted at the head of this article. Two cubs of the Grizzly Bear were sometime since kept at Peale's Philadelphia Museum. When first received they were quite small, but speedily gave indications of that ferocity for which this species is so remarkable. As they increased in size they became exceedingly dangerous, seizing and tearing to pieces every animal they could lay hold of, and expressing extreme eagerness to get at those accidentally brought within sight of their cage, by grasping the iron bars with their paws, and shaking them violently, to the great terror of spectators, who felt insecure while witnessing such displays of their strength. In one instance an unfortunate Monkey was walking over the top of their cage, when the end of the chain which hung from his waist dropped through within reach of the Bears; they immediately seized it, dragged the screaming animal through the narrow aperture, tore him limb from limb, and devoured his mangled carcass almost instantaneously. At another time a small Monkey thrust his arm through the Bear-cage,

one of them immediately seized him, and, with a sudden jerk, tore the whole arm and shoulder-blade from the body, and devoured it before any one could interfere. They were still cubs, and very little more than half-grown, when their ferocity became so alarming, as to excite continual apprehension least they should escape; and they were killed, in order to prevent such an event. * * * The following letter is from the lamented Pike, relative to the two Grizzly Bears above mentioned.

"'WASHINGTON, Feb. 3rd, 1848.

"'Sir,—I had the honour of receiving your note last evening, and in reply to the inquiries of Mr. Peale, can only give the following notes:

"'The Bears were taken by an Indian in the mountain which divides the western branches of the Rio Del Norte and some very small rivers, which discharge their waters into the east side of the Gulf of California, near the dividing line between the provinces of Biscay and Sonora. We happened at the time to be marching along at the foot of those mountains, and fell in with the Indian who had them, when I conceived the idea of bringing them to the United States for your Excellency. Although then more than 1600 miles from our frontier post, Natchitoches, I purchased them of the savage, and for three or four days made my men carry them in their laps on horseback. As they would eat nothing but milk, they were in danger of starving. I then had a cage prepared for both, which was carried on a mule, lashed between two packs, but always ordered them to be let out the moment we halted, and not shut up again until we were prepared to march. By this treatment they became extremely docile when at liberty, following my men, whom they learned to distinguish from the Spanish dragoons, by their feeding them, and encamping with them, like the dogs through our camps, the small villages and forts where we halted. When well supplied with sustenance, they would play like young puppies

with each other and the soldiers; but the instant they were shut up and placed on the mule, they became cross, as the jostling of the animal knocked them against each other, and they were sometimes left exposed to the scorching heat of a vertical sun for a day without food or a drop of water, in which case they would worry and tear each other, until nature was exhausted, and they could neither fight nor howl any longer. They will be one year old on the first of next month -March, 1848— and, as I am informed, they frequently arrive at the weight of eight hundred pounds.'

"The Grizzly Bear is remarkably tenacious of life, and on many occasions numerous rifle balls have been fired into the body of an individual, without much apparent injury. Instances are related by the travellers who have explored the countries in the vicinity of the Rocky Mountains, of from ten to fourteen balls having been discharged into the body of one of these Bears before it expired.

"On another occasion, the same enterprising travellers, Lewis and Clarke, met with the largest Bear of this species they had ever seen; when they fired, he did not attempt to attack, but fled with a tremendous roar; and such was his tenacity of life, that although five balls had passed through the lungs, and five other wounds were inflicted, he swam more than half across the river to a sand-bar, and survived more than twenty minutes. This individual weighed five or six hundred pounds, at least, and measured eight feet seven and a half inches, from the nose to the extremity of the hind feet; five feet ten and a half inches around the breast; three feet eleven inches around the middle of the fore leg; and his claws were four and three-eighth inches long. The chance of killing a Grizzly Bear by a single shot is very small, unless the ball penetrates the brain, or passes through the heart. This is very difficult to effect, since the form of the skull, and the strong muscles on the side of the head, protect the brain against every injury, except a very truly aimed shot;

and the thick coat of hair, the strong muscles and ribs, make it nearly as difficult to lodge a ball fairly in the heart.

"Governor Clinton says, that 'Dixon, an Indian, told a friend of his, that this animal had been seen fourteen feet long; that, notwithstanding its ferocity, it had been occasionally domesticated; and that an Indian, belonging to a tribe on the head waters of the Mississippi, had one in a reclaimed state, which he sportively directed to go into a canoe belonging to another tribe of Indians, then returning from a visit; the Bear obeyed, and was struck by an Indian. Being considered as one of the family, this was deemed an insult, resented accordingly, and produced a war between these nations.'

"Mr. Dougherty, an experienced hunter, relates the following instance of the great muscular strength of the Grizzly Bear: having killed a Bison, and left the carcass for the purpose of procuring assistance to skin and cut it up, he was very much surprised, on his return, to find that it had been dragged off whole to a considerable distance, by a Grizzly Bear, and was then placed in a pit, which the animal had dug for its reception. This Bear strikes a very violent blow with its fore-paws, and the claws inflict dreadful wounds. One of the cubs, as before mentioned, belonging to the Philadelphia Museum, struck the other a blow over part of its back and shoulder, which produced a large wound like a sabre cut. It is stated in Long's Expedition, that a hunter received a blow from the fore-paw of a Grizzly Bear, which destroyed his eye, and crushed his cheek bone.

"The Grizzly Bear is unable to climb trees, like other Bears; he is much more intimidated by the voice than the aspect of man; and on some occasions, when advancing to attack an individual, he has turned and retired, merely in consequence of the screams extorted by fear. The degree of ferocity exhibited by the Grizzly Bear, appears to be considerably influenced by the

plenty or scarcity of food in the region which it inhabits. Anterior to the time of Lewis and Clarke's expedition, nothing very satisfactory was known in relation to this Bear; and it was not until the publication of Long's Expedition to the Rocky Mountains, that a correct scientific description was given by that distinguished naturalist, Say.

"It may be with certainty distinguished from all the known species of this genus, by its elongated claws, and the rectilinear or slightly arched figure of its facial profile. Its general appearance may be compared with the Alpine Bear of Europe—U. Arctos—especially with the Norwegian variety. The Alpine Bear has not the elongated claws, and the facial space is deeply indented between the eyes. This Bear is also a climber; the Grizzly Bear is not.

"On the front of the Grizzly Bear the hair is short, and between and anterior to the eyes it is very much so. On the rest of the body, it is long and very thickly set, being blacker and coarser on the legs, feet, shoulders, throat, behind the thighs, and beneath the belly; on the snout it is paler. The ears are short and rounded, the forehead somewhat convex, or arcuated; and the line of the profile continues on the snout, without, any indentations between the eyes. The eyes are quite small, and have no remarkable supplemental lid; the iris is of a light reddish-brown, or burnt sienna colour; the muffle of the nostrils is black, and the sinus very distinct and profound. The lips are capable of being extended anteriorly, especially the upper one, which has on it a few more rigid hairs, or bristles, than the lower lip. The length of the hair gradually diminishes on the legs, but is still ample in quantity on the upper part of the foot. The claws on the fore feet are slender and elongated, and the fingers have five sub-oval naked tubercles, separated from the palm, each other, and the base of the claws, by dense hair; the anterior half of the palm is naked, and is of an oval figure, transversely; the base of the palm has a rounded naked tubercle,

encircled by hair. The soles of the hind feet are naked and the nails are more curved, and not so long as those on the fore-paws; the nails are not in the least diminished at tip, but they grow sharper at that part, only by lessening from beneath.

"The colour of the Grizzly Bear varies considerably, according to age and its particular state of pelage. Hence they have been described as brown, white and variegated, by Lewis and Clarke, although evidently of the same species, judging by all the other characters. The colour of the young animal approaches more nearly to the Brown Bear of Europe, than any other; in advanced life the colour is that peculiar mixture of white, brown, and black, which has procured for this Bear the appropriate name of 'Grizzly.'

"The following are the dimensions of the specimens preserved in the Philadelphia Museum, as given by Say.

"Length from the tip of the nose to the origin of the tail, 5 feet 2 inches; the tail, exclusive of the hair at tip, 1¾; from the anterior base of the ear to the tip of the nose, 6 inches; orbit of the eye, ¾ inch; between the eyes, 6⅞ inches; ears from their superior base, 3 inches; longest claw of the fore foot, 4½ inches; shortest, 2¾ inches; longest claw of the hind foot, 3 inches; shortest, 1¼ inches; hair at the top of tail, 4½ inches; length of the hair on top of the head, 1¾ to 2 inches; beneath the ears, 2½ to 3½ inches; on neck above, 3 inches; on the shoulders above, 4½ inches; on the throat, 4 inches; on the belly and behind the fore legs, the longest hairs are 6 inches.

"These measurements are taken from two individuals which were by no means full grown, as may be perceived by comparing them with the measurements heretofore cited from Lewis and Clarke. They will serve, however, to give a fairer idea of the proportions of this animal than any which have been previously given, as they are so much more detailed, and very carefully made."—*Godman's American Natural History.*

"The Grizzly Bear was found near the Sacramento, in California. The skin of this animal is said sometimes to be as large as that of an Ox; its food is the same as that of the Indians, and varies with the seasons. Its strength is said to be prodigiously great, and it has been known when lassoed to drag three horses; and when baited in the Bull and Bear fights practised in California, will check the charge of a Bull by putting out one of its paws.

"They will also ascend the oaks for the acorns, and break off branches so large as almost to ruin the tree. It has been generally supposed that they do not climb; but all the hunters bear testimony that they can do it, although slowly and clumsily. They are now less numerous than formerly; indeed, it is alleged that the lower country, near the San Joachim, was once so infested by these Bears that the Indians were obliged to keep to the highlands when travelling.

"It does not at all times kill its enemies when it has them in its power; rarely attacks a man unless he comes upon him by surprise, and is not considered a dangerous animal.

"Anecdotes are told of hunters who had fallen into the power of Grizzly Bears, which would cover them up with brush, grass, and leaves, and put them down, without further molestation, so long as they remained quiet; if they attempted to rise again, the Bear would again put them down, cover them over as before, and finally leave them unhurt.

"Three or four are usually seen feeding together. The cubs are remarkably small in proportion to the full-grown animal."—*United States' Exploring Expedition, Lieutenant Wilkes.*

THE WILD TURKEY.

MELEAGRIS GALLAPAVO.

"This noble and beautiful bird, the origin, it appears to be conceded, of our domestic Turkey, the pride, this of the forest, as that of the poultry yard, is now, like its congener, the Pinnated Grouse or Heath Hen, all but extinct in the Eastern and Middle States of the Union.

"A few of these noble birds, it is said, still exist in Vermont and Maine; Massachusetts unquestionably contains a few in her mountainous inland counties. The north-eastern angle of New York also, in all probability, has not been entirely deserted by this magnificent species of game, and I have reason to believe that a single drove yet exists in the State of New Jersey among the wild ridges of the Musconetcong Hills, west of the Greenwood Lake. From Pennsylvania westward, they become more frequent, and in all the wooded portions of the West to the Rocky Mountains, so far South as in the forest ground of Texas, and Northward into Upper Canada, though yearly becoming less abundant, they are still plentiful. They are irregularly migratory in search of food, and irregularly gregarious. I have great doubts in my own mind whether they breed eastward of the Pennsylvanian Alleghanies, it being rather my opinion that the few birds of this once abundant species which are now found in the eastern States, are mere stragglers from the southern extremity of the great Apalachian chain; it being worthy of remark, that it is solely along the line, or on some of the offsetting spurs of that great mountain range that they are found at present.

"For some inexplicable reason, Wilson has not described or mentioned this bird in his American Ornithology, although it is impossible to conceive that he was ignorant of its existence, any more than that of the

Wild Swan—*Cygnus Americanus*—the latter bird especially frequenting the waters adjacent to Baltimore, where he resided, and the former, I imagine, being in his day even more than at present, a common article of sale in the markets of that city.

"Despite, however, his eloquence and ability as a writer, and his acuteness and general accuracy as an observer of nature, it appears to me that Mr. Wilson was in no respect a man of system. He seems to have jotted down his notes concerning every new bird, or species, as he met it; to have thrown them pellmell into his portfolio, and thereafter taken them out in a lump and published them without arrangement certainly, and perhaps without much revision. It appears to me that a carefully revised edition of Wilson's Ornithology, systematically arranged, completed to the latest modern discoveries, and amplified with copious notes, is one of the desiderata of the literature of the day. This book, as it now exists, being so confused in method, and so incomplete, as to afford a very imperfect idea of the Ornithology of America, while the great and splendid works of Bonaparte and Audubon are so costly as to be almost entirely beyond the reach of the ordinary purchaser."

The following description of our bird is from the Birds of America by Mr. Audubon. Of its manners, haunts, and habits, I shall speak more at large when I come to treat of it as an object of pursuit as game.

"Male, 49.68. Female, 37.54.

"Breeds from Texas to Massachusetts and Vermont. In the interior to the Missouri, and thence northward to Michigan. Common, resident, though removing considerable distances in autumn in pursuit of food.

"Bill shortish, robust, slightly arched, rather obtuse, the base covered by a bare membrane; upper mandible with dorsal outline arched, the sides convex, the edges overlapping, the tip a little declinate; under mandible somewhat bulging toward the tip, the sides convex. Nostrils situated in the basal membrane, oblique, linear,

covered above by a cartilage. Head small, flattened above with a conical, pendulous, erectile caruncle on the forehead. Neck slender, body robust. Feet longish and strong; tarsus covered anteriorly with numerous transverse scutella, scaly on the sides, scutellate behind. Toes scutellate above, scabrous, papillar, and flat beneath; hind toe elevated, half the length of the lateral toes, which are nearly equal, and much shorter than the middle toe; claws slightly arched, strong, convex above, obtuse, flat beneath. A conical rather obtuse spur on the tarsus, about two-thirds down.

"Conical papilla of the forehead rugose, sparsely covered with bristles. Head bare, and corrugated, the skin irregularly raised, and covered with a few scattered bristles. External ear margined with short and slender thin feathers. Plumage in general short, compact, glossy, with metallic reflections. Feathers double, as in other gallinaceous birds, generally oblong and truncated. A pendulous tuft of long bristles from the upper part of the breast. Wings shortish, convex, rounded, the fourth and fifth quills longest. Tail rather long, ample, rounded, consisting of eighteen broad, rounded feathers, capable of being erected and expanded in a permanent manner, when the bird is excited, and reaching nearly to the ground, when the bird is standing erect.

"Bill yellowish-brown. Frontal caruncle blue and red. Rugose and carunculated skin of the head and neck of various tints of blue and purple, the pendulous anterior caruncles of the latter, or *wattles*, bright red, changing to blue. Iris hazel. Legs and toes bright purplish-red, claws brown. Upper part of the back and wings yellowish-brown, with metallic lustre, changing to deep purple, the truncated tips of the feathers broadly margined with velvet-black. On the middle and lower back, the black terminal bands of the feathers almost conceal the bronze colour. The large quill coverts are of the same colour as the back, but more bronzed, with purple reflections. Quills brownish-black, the primaries banded with grayish-white, the secondaries with

brownish-white, gradually becoming deeper toward the proximate feathers, which are similar to the coverts. The lower part of the back and tail coverts are deep chestnut, banded with green and black. The tail feathers are of the same colour, undulatingly bronzed and minutely sprinkled with black, and having a broad, blackish bar toward the tip, which is pale brown, and minutely mottled. The under parts are duller. Breast of the same colours as the back, the terminal black bands not so broad; sides dark coloured; abdomen and thighs brownish-gray; under tail coverts blackish, glossed with bronze, and at the tip bright reddish-brown.

"Length, four feet one inch; extent of wing, five feet eight inches; beak, one inch and a half along the ridge, two inches along the gap. Tarsus, seven inches and one quarter; middle toe, five inches, hind toe two; pectoral appendage one foot. Such are the dimensions of an individual of which I made a drawing, which I need not say was a fine specimen.

"The female is considerably inferior in size, with the wattles much smaller, the tuft on the breast comparatively small, and only in old birds; the colour of the plumage duller, there being but little of the refulgent hues of the male, the lower parts brownish-black. The young, before being fledged, are pale brownish-yellow, pale yellowish-gray below, the top of the head brighter, marked in the middle with a pale longitudinal brown band; the back and wings spotted with brownish-black, excepting the smaller wing coverts, which are uniformly dull brown."

FOREST SPORTS.

Two only of the eleven noble animals, which I have recounted and described above, are peculiar, and but four now indigenous, to the Eastern States and Canada; although it is certain that two at least, if not three, of the others, were formerly found to the east of the Delaware, and south of the great lakes.

The Moose and the Cariboo are never found, and probably never have existed, far to the westward of the River St. Clair, connecting Lakes Huron and Erie, south of the 43rd degree of north latitude. Within these bounds they still exist, wherever the advances of civilization have not banished them to deeper northern solitudes. Common Deer, and the Black Bear, are still indigenous from the extreme north-east, to the south-western regions of North America, as were undoubtedly the Elk and the Wild Turkey not many years ago.

With the Moose and Cariboo, I shall therefore commence, in order to get through those sports which may yet be enjoyed to the eastward, in the first instance, before plunging into the great western wilderness.

The Moose, as we have seen, is a native only of the colder and woodland regions of the continent, being a browsing rather than a grazing animal—as his peculiar conformation, the shortness of his neck, and the length of his legs, clearly indicate. On open plains he could scarcely exist, and his favourite haunts—to which is due his existence at the present moment—are the depths of forests and woodland morasses, which probably never will be cleared, owing to the severity of the climate, and the sterility of the soil.

The most southerly and westward point, at which this noble specimen of the Deer tribe is now known to exist, is that singular district, to which I have before alluded, composed entirely of an aggeries of mountains, rock-ribbed, and forest-girdled, interspersed with a perfect net-work of lakes, rivers, and morasses, lying between Lake Champlain, Lake Ontario, the St. Lawrence, and the Black River.

Here it still breeds, and yards in winter; here it is yet killed by the hunters, and by the few Indians who yet linger in that region, or visit it from Canada during the season of deep snows, for the purpose; and here it may still be found, especially in the vicinity of the Racquet Lake and River, at the latter season, if I may rely on the authority of my friend, CHARLES F. HOFFMAN, one of the first explorers of that romantic region, and one of the most enthusiastic of American woodmen, who has sung in his beautiful poem "Kacheco," that in Lake INCAPAHCO.

"For fish and deer at either end,
The rifts are good; but run-ways more
There are by crooked KILLOQUORE.
And RACQUET at the time of spearing,
As well as that for yarding Moose,
Hath both enough for hunter's use."

Eastward of this wild and romantic tract, the hunters' terrestrial paradise, it will scarcely be found south of Canada line, unless we reach the DEAD RIVER, famous for Arnold's winter march against Quebec, and the vicinity of MOOSEHEAD LAKE, in Maine; though it is possible that a few may occasionally cross the Lines from the Eastern Townships of Lower Canada, about Lake MEMPHRAMAGOG, where it is still abundant, into the northern parts of Vermont and New Hampshire. In the northern parts of Maine, what was formerly called the disputed territory, the British Provinces of Nova Scotia and New Brunswick, and everywhere north of the Lawrence, with the exception only of the most southerly and highly cultivated portions of Upper

Canada, or—as it is now termed—Canada West, it is very plentiful: and in the British Provinces it is an object of keen pursuit by amateur sportsmen, particularly of H. M. Regiments, in garrison at Quebec and Montreal, to whose rifles great numbers fall victims every winter. On this side of the Lines, the Moose is rarely, if ever, pursued by sportsmen as an object of chase; and it is not very frequently that its flesh is even brought into our markets, though it is deservedly esteemed a great dainty.

With regard to the Cariboo, or Rein-deer of North America—although, by the way, some little doubt appears to be entertained of late years, as to the fact of the perfect identity of the Wild Deer, hunted in our northern forests under this name, with the celebrated beast of draught which goes under the same name in the Arctic regions—much less is known with certainty than of his congener the Moose.

Mr. De Kay, in his Natural History of the State of New York, appears to entertain some doubt as to the propriety of including him in the Fauna of that State; and I think has never seen the animal at all, inasmuch as he states it to be of much the same stature with the Common American Deer, *Cervus Virginianus;* and farther asserts that, if it were to be found at all in the immediate vicinity of civilized man, its extreme gentleness, and its gregarious habits, would render it so easy a prey, as to ensure its destruction.

I have never seen the animal myself, but I am acquainted with several persons who have pursued and shot it; I have often examined its antlers, and its hoofs, with the pastern and cannon-bone attached. A specimen of each of these can be seen at any time by the curious among sportsmen, in the office of the "Spirit of the Times," among Mr. PORTER'S collection of curiosities. The latter, the hoofs I mean, and antlers, perfectly corroborate the reports of all hunters with whom I have spoken on the subject, that the CARIBOO, or Rein-deer of the forests, is when adult

not inferior in size to a yearling heifer, and that the old males, or bulls, as they are termed, are often found from fourteen and a-half to fifteen hands in height. In truth, no person who had ever seen so much as the track of the animal in question, could think of comparing it in point of size to the Deer of America.

It is this difference of size especially, which has led to the belief that the Cariboo is, in truth, a distinct variety of the Rein-deer from that which is the chief article of food to the Esquimaux of the western, and domesticated by the Laplanders of the eastern continent. That animal is scarce found either in Europe or in America, if identical in the two continents, south of the Arctic Circle, or a degree or two above it; while the Cariboo is found *here* everywhere north of the 45th and 46th degrees north latitude; a difference of range and climate which cannot be explained on any ground of comparative temperature, and which would go far toward the establishing a specific difference.

Indeed Mr. BARTON WALLOP, an English gentleman of rank and education, many years a resident of New Brunswick, who, so far as I know, is the only practical sportsman who has written of Cariboo-hunting, —*vide*, New York Turf Register, vol. ix., p. 193, and Porter's edition of Hawker, p. 326,—speaks of it as an animal *confessedly* distinct from the Rein-deer. "By-the-bye,"—says Mr. Wallop, in an imaginary conversation between two characters of one of his clever sporting sketches—"before you leave us, I must show you some Cariboo hunting. The Cariboo of this country are very like Rein-deer, a little larger; they travel with great swiftness and ease over the snow; but a bull Cariboo has little of the amiable or tractable about him, and when enraged is a formidable antagonist."

Again, a few pages further on in the same paper, he makes his hero discourse thus to the neophyte, or *green 'un:* "As this is the first time you have seen a Cariboo trail, you must observe it is much like that of *an Ox*, save that the cleft is much more open,—and the pastern

of the Cariboo being very long and flexible, comes down the whole length on the snow, and gives the animal additional support."

Now Mr. Wallop is undoubtedly perfectly well acquainted with the general appearance and stature of the *Rein-deer*, which, if not elsewhere, he must have seen frequently exhibited in English menageries—I remember a herd of thirty or forty head, shown at the Egyptian Hall, Piccadilly, not very many years since—and could scarcely fail to distinguish between that animal and the Cariboo, in point of size; at all events, he knows what an *Ox* is, and could not compare the track of a beast the size of the American Deer, with that of one so infinitely its superior.

Hence I judge either that there are in America two distinct varieties of the Rein-deer—the Arctic animal and the Cariboo—or that Mr. DeKay has taken his description of the American Rein-deer, or Cariboo, from the European animal, the size and habits of which are much the same as he describes those of our countryman. It may be, however, that the growth of the animal is stunted by the cold of the Arctic regions, and that they are both of one original species.

Again, the gentleness and gregarious habits of which he speaks, are indeed strikingly characteristic of the European Rein-deer of Lapland, Spitzbergen, and the like,—perhaps, also, of the Rein-deer of the extreme Arctic regions of America—but are in no wise common to the Cariboo, which is very rarely found in parties of above four or five, and never—to my knowledge—in herds exceeding twenty.

It is, moreover, the shyest and wildest by far, as well as the fleetest, inhabitant of the northern forests; infinitely more so than the Moose, which can invariably be run down, when the snow is deep and crusted, by a strong hunter on snow-shoes; whereas the Cariboo is so difficult of access, and so great is the velocity and continuance of his flight, that when he is once alarmed,

and has betaken himself to his heels, it is considered utterly useless to pursue him further.

With these few preliminary observations—which I judge necessary, in that I differ somewhat from Mr. DeKay, although he is the best authority I can find on the subject, both as regards the size and habits of the animal—I shall proceed at once to the subject of Moose and Cariboo-hunting, which I shall include under one common head, inasmuch as they dwell for the most part in the same localities, are hunted with the same apparatus, the rifle, namely, and the snow-shoes, without the aid of horse or hound, and, with some small exceptions, in the same manner.

I will only add here, that I have no hesitation in affirming Mr. DeKay's correctness in including the Cariboo among the animals of New York, since it undoubtedly exists in the district I have named above, of which HAMILTON COUNTY occupies a large portion. Westward of this the Cariboo will not be found, I imagine, to the south of the Ottawa River and Lake Nipissing, or the 46th degree of north latitude, at the very highest.

MOOSE AND CARIBOO HUNTING.

For the pursuit of neither of these noble animals, the largest, fleetest, and most wary game on earth, is the assistance of either hound or horse available. The nature of the ground which they inhabit, and over which they must be pursued, render the use of the horse out of the question, consisting of the densest and most impervious brakes of the pine, larch, and white cedar forests, which cover so large a portion of the districts which they most affect, and being very often interspersed with deep bogs, and insecure morasses, affording foothold to no tread, save that of the cleft hoof of the ruminating animals.

How animals of the bulk and weight of these huge Deer, can force themselves between the stems of the thickest evergreen saplings, among which a man can with difficulty work his way only by slow degrees, is in itself no easy matter to comprehend; but when to size and weight is superadded the vast burden of ponderous and spreading antlers, which they bear on their heads—in a full-grown bull Moose exceeding 50 lbs. weight—and which, one would imagine, must hopelessly entangle them in the brake, it is impossible to account for the ease and celerity with which they will pass through the heaviest growth of forest.

The hunter is compelled, therefore, to pursue—when he does *pursue*—both these giants of the cervine race on foot; and for this reason hounds are rendered as unavailable as horses; since the speed of the animal, when once alarmed, is so great, that it is very questionable whether even in open country, and with

mounted hunters, it could be run down, or even run from scent into view, by the fleetest Fox-hounds. When we consider, however, that, in the wooded fastnesses through which the chase ever lies, it is utterly impossible to keep the hounds in hearing, and that they could only serve to render the swift and wary quarry swifter and warier yet, it will be at once apparent that hounds must be dispensed with in this species of hunting.

The craft of the woodman, therefore, and an accurate knowledge of the habits of his game, are the only aids on which the hunter can rely; but by these, and the aid of weather to boot, he will find little difficulty, beyond that fatigue and roughing which give its chiefest zest to life in the woods, in bringing these antlered monarchs of the northern wilderness, within range of the unerring rifle.

During the rutting reason, in the summer months, there are two methods by which the Moose may be taken with something approaching very nearly to certainty, by those acquainted with the country, and with the instincts of the creature. At this period of the year, like all others of the Deer species, the Moose is terribly infested and tormented by insects, especially by that pest of the woodland wilderness, the black fly; and is in the habit of resorting to the ponds and lakelets, which are interspersed every where among his forest haunts, for refuge from his blood-sucking enemies. Here he will wade out as far as long legs will carry him, and with his head only above the cool surface, will wallow about for hours, secure from his winged foes, browsing deliciously on the floating leaves and buds of the various kinds of lotus, water-lily, and other aquatic plants, and luxuriating in the coolness of the pure element. Of this habit the hunter makes fatal use. Concealing himself before the first dappling of the eastern sky, well to leeward of the trail, by which he has previously ascertained, by ocular proof, that the Moose enters his forest-bath, he quietly awaits his

coming, listening with watchful ears to the slightest crack of the dry twigs, the lowest rustle of the parted branches; and is for the most part rewarded by a point-blank shot at the huge, unsuspecting quarry.

Another, and yet more fatal method, by which man treacherously turns the poor brutes' very pleasures into a lure to certain death, is to simulate the cry of the cow Moose, which is easily done by immersing the lower end of a common cow-horn partially in the water of some pool or river, and blowing through it, in a note very easily acquired, which perfectly resembles the lowing of the female, and which rarely or never fails to bring down the finest of the bulls from their haunts in the mountain glens, to the ambush of the lurking hunter, in search of their amorous mates.

The Indians use for this purpose the bark of the beech or alder, twisted into the shape of a paper cornet, or a postman's tin horn, and, with this rude implement, are perfect adepts at producing the sound requisite to call the bull to his love chase.

The afternoon, and the silence of moonlight nights, are the best times for this mode of hunting; and cowardly and treacherous as it may appear, it is perhaps the most perilous, and not the least exciting, method of attacking this great Deer. For, in the first place, the bull Moose may generally be heard roaring in the upland glens, responsive to the simulated call, long ere they reach the hunter's station; and the interval between each successive bellow, nearer, and louder, and more full of passionate fury, is necessarily a moment of the keenest excitement. Then comes the tramp of his approaching gallop, the crash of branches torn asunder by his impetuous charge, and at last the presence, in the full heat and heyday of his amorous rage, of the forest champion.

Again, when he discovers that it is a cheat, and that no cow Moose is on the spot, expectant of his caresses, his fury is tremendous and appalling; for shy and timid as is this monstrous animal at every other season, dur-

ing the rutting-time he is dangerous and savage in the extreme, and will even attack a man when unprovoked, if he cross his path, in his moments of wanton dalliance.

If he discover then the hunter, who is luring him, by playing with his tenderest passions, he will charge him on the instant, fearless; and wo betide the luckless wight whose hand trembles in the aim, or whose rifle misses fire at that crisis. A bull Moose, seventeen or eighteen hands in height, with antlers of six feet spread, and hoofs as big as an Ox's, the edges of which cut like a sabre, and which he can handle as deftly as a prize-fighter, is anything but a pleasant customer at close quarters.

Sometimes two or three bulls will come together, and fight out a forest tournay in the presence of the hunters; and the grandeur of such a scene, witnessed by the pale moonlight, in the depth of the untrodden forest, must be exciting and majestical in the extreme.

A tilt of this sort has been so graphically and characteristically described by the gentleman to whom I have referred before, Mr. Barton Wallop, in the eleventh volume of the 'Turf Register,' that I cannot resist the temptation of extracting it for the entertainment and instruction of those of my readers, who do not possess that once excellent, but now, alas! defunct periodical.

"We reached Adella's wigwam," says he, "just as the sun was taking his last peep at us over the western mountains, and though we had walked some eighteen miles through a thickly wooded country, we agreed after supper to take a *shy* at the Moose.

"'No time like the present,' said Tom, 'we have a lovely night, the harvest moon is at her full, and I am too anxious to sleep. My soul's in arms!—shoulder blunderbuss!—each man to his blanket! his share of lush and grub!—are you ready, gentlemen?—march!'—and off we went.

"The sharp October air came chilling upon us as we strode forth, and made the exercise agreeable. Howard had pleased to this moment to keep me in blessed igno-

rance, and I began to think we were on rather a wild expedition.

"'In the name of our great Nimrod!' said I, 'do, like a good fellow, give me some little idea what we are to do, and how we are to shoot Moose at this hour of the night.'

"'There you rather puzzle me,' replied Howard; 'I am quite as much in the *dark* as yourself, never having before tried this sport. All I know is, that the Moose pair off at this season. But what is Adella about;—what *are* you doing, peeling the bark off that beech?'

"'O, me only making *call*,' said the Indian, as he twisted a long piece of bark into a conical shape—something like a postman's tin trumpet—'only making *call*, to make noise like cow Moose. When bull Moose call, then me answer.'

"'I fear,' answered I, 'it will be like calling spirits from the vasty deep.'

"But the fellow has again stopped, and is cutting down small spruce.—'What's in the wind now?'

"Adella, after he had finished his choping, gathered up the spruces, and choosing a piece of dry mossy ground, he stuck the bushes in a circle large enough to hold the party; then motioning us to enter, he followed, and closing the aperture, we were enclosed in a snug little encampment.

"'Now,' said Tom, 'what is next to be done?—this seems but dull music. Are we to wait here till some unfortunate Moose strolls this way?'

"'Oh, me lay out many nights and see no Moose—many cold nights, and nothing in camp to eat. Very hard for poor Indian to live now. White man kill all game. Some shoot um—some trap um—but many, many Moose, Cariboo, Deer, and many bird killed, when white man burn woods for clear land every spring—sometimes burn poor Indian, too.'

"'But how do the woodmen trap the Moose?'

"'Why, white man he go find track of Moose down to spring—well, Moose come every night, may-be, to

drink, and when he sartain Moose always come, he get new rope, no tar—he then go to track, and bend down good stout ash, and make him fast with stake, close to track—then he fix down a little brush fence, right across track, he take rope and make running noose, and fasten rope to ash, and put noose on the brush. Well, Moose come—he never go out of track—he come to brush, and step um leg high, sometime put um right into noose. Well, he find he caught, den he make great jump; up go ash, and Moose go on his back, his leg in de air—more harder he pull, more harder rope hold.'

"'Well, but would it not be much easier for the men to shoot the Moose?'

"'Oh no; white man too busy; may be he bad shot; may be he only wound Moose, then Moose run away and die. White man no able to follow, only Indian able to find track.'

"We had conversed long upon hunting, &c. The night was frosty, and our blankets were brought into play—to say nothing of the mountain dew, and a stone pipe to keep us warm. Adella many times had tried his call, which produced a sound not unlike the lowing of a domestic cow. The conversation now flagged, and I was laying on my back, ruminating on the dancing orbs above me—taking into serious consideration whether they were inhabited, and, if so, whether the natives really do, as has been learnedly stated, carry their heads under their arms; and I was just bringing another *if* to bear upon the inconvenience of such a proceeding in hunting, &c., when I was disturbed by a distant low, which Adella instantly answered with his call.

"'Now, brother, we sure to see bull Moose—he think cow call him, and when he come, and no find cow, he very mad—just same as you, spose you going to see pretty squaw, and she no come. Moose always most quiet of any beast, though um very big, most big as horse, and horns ten times big as Deer, and he very strong. He very quiet, but he no like to be cheated

out of um cow; so when he come, you be very still, and no shoot um till I tell you. May be he kill you if he get mad, and see.'

"We could hear from time to time the loud bellow of the bull Moose, which was always answered by the call. Our rifles were examined, and we remained in a state of anxious suspense about half an hour. At last we could distinctly hear the tramp of the bull, as he tore through the thicket. It may appear but tame work to lay in ambush, and lure a poor animal to the muzzle of your gun—yet, for my own part, I must confess my feelings were excited to a degree I had seldom before experienced. The novelty of the scene, the deep roar of the bull echoing from hill to hill, the death-like quiet, and then the tremendous rush of the powerful creature, as he caught the sound of the Indian's call, wrought me up to a pitch of curiosity which was almost past bearing, and more than once did Howard pull me down, as I attempted to peer over our palisade. I was soon happily relieved by the bull Moose bursting forth into the open space before us. He gazed round, and throwing back his heavy antlered head, sent forth a roar that made me clutch my rifle with redoubled vigour. Echo after echo answered the cry, until it died away in a faint and distant whisper; then, to my surprise, another roar—which appeared quite near us, burst upon our ears. I looked at the bull before us—for a moment he stood, his head bent in an attitude of great attention; but as soon as the bellowing was renewed, he uttered a shrill cry, and dashed the dry leaves and dust over his back, and almost instantly another bull rushed into the *open*. Adella's call had been most lucky in luring two rivals for this shadow of a mate. I might moralize upon this—many a poor devil has been cheated with a worse imitation—but such is not my province. It was a noble sight to look upon these two majestic creatures, in the gray and silvery moonlight, surveying each other like two forest champions, measuring each other's power. They stood near seventeen

hands, and their many-tined antlers spread at least six feet in the span. Not long did they dally—a few preliminary shakes, as many scrapings of the dirt, and they dashed forward with a force and energy that would have surprised the oldest Spanish bull-fighter. I now pitched my rifle to my shoulder, having recovered from the surprise, but Adella held my arm, and signing me to be quiet, seized one of the small branches of our ambush, and throwing himself on the ground, commenced worming himself up to the Moose, who appeared pretty equally matched. Howard and myself, with our rifles firmly grasped, watched with much anxiety the motions of the Indian, and more than once I was inclined to risk a shot at the struggling animals. At length Adella, having got within reach of his prey, sprung from the ground, and by a sharp blow from his axe, severed the tendon of the hind leg of one of the bulls, and instantly disappeared in the thicket. The wounded Moose rolled over upon his side, and his adversary commenced goading him in a most dreadful manner. I felt pity for the poor helpless bull, and was taking deliberate aim at his remorseless adversary, when I was again prevented by the Indian. Adella now put his call to his lips, and imitated the lowing of a cow Moose. Quick as thought, the bull turned, and advanced towards us—the lowing was repeated, and the Moose actually came within ten yards of our ambush. But he now seemed to 'smell a rat,' and shaking his formidable horns, he glared searchingly into the thick brush. The Indian now gave the sign—two balls entered his brain, and he sank upon the turf motionless. The Indian now stepped forth, and after dealing the ham-strung Moose a stunning blow on the brow, drew his keen knife across the throat of the prostrate bull.

"'Well, my boy, there lay our two combatants; 'twas a glorious sight that forest joust. But I cannot but think our game has been killed most ingloriously—Adella, why did you not let us shoot the Moose?'

"'Why me thought brother maybe only wound um—

then no get um—maybe Moose make fight, then maybe kill you—best make sure.'

"'Ha! ha!' said Howard, 'these fellows always look out for No. 1. You know our bargain to let the Indian have the carcasses, save one hind quarter—we the hide and bones. Now those Moose will weigh nearly three hundred and fifty pounds, and the venison,—which, by-the bye, is the most delicious of *all* meat,—is worth six-pence per pound at least, so he was right to make sure. Yes, yes! I know these people pretty well—they have been cheated so often by the white men, they have at last learned to outwit them. Before I knew this family I was often deceived by Indians. I was once left in the woods many miles from any settlement, by an Indian whom I had hired to carry my traps Cariboo-hunting. He went off on a bear track at such a pace I could not follow. I was paying him ten shillings a-day, and he could get five pounds at a magistrate's for the bear's nose. My starving to death in the woods was quite immaterial to him. But what are we to do now, Adella?'

"'O, no use any more try call Moose, if any near he hear gun, and no come out to-night. We must stay and watch these Moose, or Fox and Lynx spoil um meat. Master Tom, you know how find um way, you go to camp and sleep—you almost all one Indian, now.'"

Another method of taking Moose during the summer is a species of still-hunting, or stalking, which is performed by paddling cautiously along the shores of the lakes, under the covert of the underwood and bushes, or through the connecting rivulets or rivers by which the lakelets discharge their waters, and so come upon the game while bathing, unsuspicious, as I have above described. This sport is also brilliantly narrated by Mr. Wallop, and as I have never witnessed it myself, nor am aware of any other written description of it, I shall quote it in conclusion, as giving a perfect representation of Moose-hunting in summer in the provinces.

The characters are the same with those introduced in the previous sketch: two Micmac Indians, "Sabatisie," and his brother "Adella," both of whom I believe to be real personages; "Howard," an old resident and hunter; his visitor, "Meadows." The scene is Nova Scotia, the time midsummer.

"The dawn was just visible, and a few stars still lingered in the gray sky, when I was as usual aroused by the Indians. How fresh is the first breath of the newly awakened day! What hour so life-invigorating! Braced by the thin pure air, the frame throws off its languor, and is at once ready for action. Walking forth I joined Howard at the stream. 'Come,' said he, 'rig up your tackle; we may have some good sport before the sun is up: the fish, during this hot season, feed only before sun-rise, and two or three hours after sun-set.' With the assistance of Adella I launched one of the canoes, and placed her so as to command the mouth of the stream. A gentle morning breeze had sprung up, displacing the curtain of thick mist which overhung the lake, and forming that beautiful curl on the water so essential to fly-fishing. At the first cast, three Trout rose at my three flies, and with the assistance of Adella, I landed two fine fish. So lively did the fish rise, that after a few casts I was compelled to abandon two flies; and when the sun poured forth his bright rays, and put an end to my sport, I had thirty fine trout lying in the bottom of the canoe.

"After a hearty breakfast we again embarked, and darted down the rapid. Howard and Adella were in advance, and I enjoyed the novelty of the scene of *poling* a *canoe* down a rapid. Indeed it was a thrilling sight to behold the tall and graceful figure of the young Indian stripped to the waist, his glossy skin shining in the morning sun, standing erect and firm in the stern of the canoe—in his hand he grasped a stout pole, some twelve feet long, and with quick eye and ready hand guided his frail bark from the dangerous rocks upon which she each moment appeared about to be dashed to

pieces. The *thoroughfare* was near three miles long. We now entered a lake very similar to that we had left. Wild-fowl were plenty; but Sabatisie recommended abstaining from shooting, as we expected to find Moose either browsing on the margin, or wallowing in the stream. The Indians having resumed their paddles in the deep water, we glided quietly on, passing three lakes and as many connecting streams. About mid-day the sun became so overpoweringly hot, that we resolved to take shelter on the first grassy bank we came to. The canoes were hauled up, and we cast ourselves under the shade of a hospitable cedar. I had smoked myself drowsy, and was composing my limbs for a doze, when Adella making a sign to us to be quiet, cast himself flat on the earth and *wormed* his body to the water's edge. In a short time he returned to us with the joyful news that two Moose had entered the stream a short distance below. How he had *guessed* such was the case, before he obtained ocular demonstration—whether he *heard* or *smelt* them—I cannot be expected to know; but since my rambles with the Indians, I can believe almost any tale of their extraordinary sagacity in discovering objects at a distance, tracing, &c., &c. The bank on which we were reposing, was a small peninsula, jutting into the river. Between us and the Moose, there was a thick clump of alders which reached to the water's edge; but beyond them the bank was clear some distance down, so that it was impossible to get within range of the Moose from the land. A council was held, when Sabatisie proposed we should carry the canoes a short distance up the stream, embark, and coming rapidly down the river, dash round the point, and we *might* be on the game before they could gain the woods. This plan was quickly adopted. We embarked about two hundred yards up the stream. My rifle was half up, my thumb on the hammer, and my heart beating with anxiety, when we dashed round the point with the rapidity of a hawk pouncing on its prey. I scanned the broad surface of the stream—but alas! the Moose were not visible.

In silence and disappointment we glided quietly some distance down the rapid, and had given up all hopes of the Moose, when a cheery cry from Howard told me he had the game in view, and in a few seconds I got sight of their enormous antlers. The Moose were making the best of their way down the stream, and so swift was their pace that I supposed it useless to attempt pursuit; but not so the Indians. The river in this part was tortuous, and the rocky and abrupt banks were bounded by tall and perpendicular cliffs. Sabatisie, grasping his pole more firmly, and keeping time with foot and hand, sent the light *bark* spinning through, or more properly *over*, the rapid torrent: she actually seemed to fly from wave to wave. Casting my glance back, I saw that Adella had no idea of being beaten in the chase; and though the torrent was at this point foaming against sharp rocks, the gallant young Indian, instead of following the regular course of the stream, dashed directly across, and by that manœuvre placed his canoe some distance in advance of ours. For an instant, after performing this daring feat, he turned, stood erect, and with a look of triumph waved his hand and uttered a yell of delight. Sabatisie answered the cry, and the rival brothers strained every nerve in the race. No huntsman ever cheered his hounds more merrily than did my pilot his light canoe. She seemed 'a thing of life,' and well did she answer the call: she leapt! she flew! skimming like a swallow on the surface, and mocking the rude waves which, as we advanced, seemed to roll in an opposite direction. On, on we dashed. Now the Moose are in view—now a bend in the stream hides them—and now again their broad antlers are seen waving to and fro on the rugged water. We were gaining rapidly, and the chase was becoming every moment more and more interesting. Adella was still some distance in advance of us, when an abrupt turn hid both the game and our comrades; and before we rounded the rock, the sharp crack of a rifle told me Howard had got within range. A moment, and we dashed round.

The scene was wholly changed. Instead of a foaming torrent, rugged rocks, and towering cliffs, the stream was now broad and placid, the banks verdant and easy of approach. The Moose were still struggling forward, and appeared to be making for a thickly wooded island in the centre of the river; nor could all the efforts of Adella prevent them from accomplishing their purpose. Our companions now paused, as if uncertain how to act; but Sabatisie, with a cheery cry, dashed on, and placed his canoe between the island and the main-land; and Adella, taking the hint, gained a position so as to guard the other side. Sabatisie now rested for a moment, and leaning over the side of the canoe, took a long draught of water. He looked as fresh as when we started, and though the day was excessively close and hot, yet not a drop of moisture appeared on his swarthy brow. After waiting some time in suspense,—'Sartain brother Howard send dog to drive Moose,' muttered the Indian, in rather an anxious tone. Nor was he mistaken; for we soon heard the bay of the dog—but it was of short duration, and again all was quiet, when Sabatisie uttered a yell that made me almost spring out of the canoe. The Moose had taken the water, and were making for the main-land on our side. Sabatisie made swiftly for the shore, and springing on the bank like a greyhound, arrived fortunately in time to head the Moose off. Adella had by this time gained a position on the other side of the river, so that the Moose were obliged to make the best of their way up the rapid, or run the gauntlet between our canoes. The pursuit now again commenced. The canoes were nearly abreast, and again the Indians strove for superiority. But now the greater strength and bottom of Sabatisie told; the current run at least six miles an hour, yet did he force his light vessel steadily and quietly up the stream, so that we were soon far in advance. At length we were within range of the Moose, but still Sabatisie held on. 'Sartain brother Meadows no shoot till I tell you.' We were now not fifty yards from the Moose, when Saba-

tisie, choosing a good opportunity, placed his pole on the rocky bottom, and dexterously held the canoe as firm and motionless as a rock. 'Now, brother!' A violent plunge showed my ball had not erred, and the monstrous carcase came rolling down the current. Adella and Howard passed on in pursuit of the other Moose, which was some distance ahead.

"I had been so much interested in the chase, that I had not noticed the great change which had taken place in the weather. The atmosphere, which a short time before was bright and cloudless, had suddenly become darkened—the air was thick and sultry—at intervals the angry growl of distant thunder could be heard, and the trees of the surrounding forest appeared to moan and sigh, as if dreading the approaching tempest. Sabatisie's face—which till now had glowed with all the enthusiasm of the chase—grew serious, and casting a glance at the sharp rocks and perpendicular cliffs on each side of the foaming rapid, he hailed Howard. 'Better turn back, brother—sartain very bad,' said he, pointing to the lowering clouds, which were becoming every moment more dark: 'better come back and haul up canoe before storm come.' 'Hallo! Sabatisie,' cried Howard, 'no shirking, with such a fellow as that before us! You are done up, are you? I thought that last burst up the rapid would blow you. Yoicks! hark forward, Adella! they must not kill both the Moose—forward, my lad, forward!'—and Howard, to my astonishment, seizing another pole, sprung to the bow of his canoe, and at once showed me he was deeply skilled in the *mysteries* of the '*light bark.*' Not a moment did Sabatisie hesitate—the taunt had stung him in the tenderest point. A proud smile for a moment played over his countenance, and telling me to place myself so as to throw the whole weight of my body in the bow of the canoe, he settled steadily to his work. With the assistance of Howard, Adella had been gradually widening the breach between us; but when Sabatisie had trimmed the canoe to his liking, and put forth his whole strength, it was evident they could not long

maintain their advantage. Thus we proceeded, and the trial of skill and strength occupied all my attention, till a fierce peal of thunder burst directly over our heads, and one vivid glare of lightning wrapped the whole scene in a momentary blaze: down came the wind, rushing between the high cliffs, and lashing the rapid into a white foam. The poor canoe seemed to tremble, as Sabatisie, with a dark frown on his swarthy brow, sternly forced her against both the tempest and the force of the current. I now began to think we had better have taken the advice of the elder Indian. The sharp rocks on each side frowned foreboding on our approach, and we could not trust our frail vessel near them: to turn back was equally dangerous, as had the canoe broached to and taken the swell on her beam, she could not have lived a moment. The mist and foam had for some time hid our comrades from view, when the report of a rifle brought my recollection back to the chase, and I now thought I could discover a dark object drifting down the torrent towards us. I was not mistaken—it was Adella's canoe!!—and as it flew past, I could perceive the forms of two persons lying flat in the bottom. As the tempest was now at its greatest fury, it required all the skill, nerve, and strength of Sabatisie to keep the head of our canoe to the wind. His eye was steadily fixed on her sharp prow; his body thrown back so as to form an angle with the pole, which was placed firmly on the rocky bottom; and with his feet braced in the canoe he gradually manœuvred her under the lee of a small rock, round which the waters formed an eddy. Having gained this position of comparative safety, he bid me by signs cast myself flat in the bottom of the canoe; then quickly seizing a paddle he sprang lightly over me, and by this manœuvre instantly changed the bow into the stern, and we darted down the angry torrent. As I dared not lift my head, I could not see what passed, until I found the canoe driven with great force against some soft substance. I sprang up, and found we were high and dry on the grassy island from

which the dog had driven the Moose. The gale still raged with frightful violence, and my anxiety for the safety of my friend was great; but nothing could at present be done; we had most miraculously escaped. Sabatisie hauled the canoe up, and turning her over, we cast ourselves beneath her to await the abatement of the tempest. Shortly after I had been in this position, I thought I felt something cold rubbing against my hand, and turning round, I saw our trusty little friend, Billy. He was very lame, aud the blood was running fast from a deep wound in his shoulder, received, most probably, when he charged the Moose. I dressed the cut, and bound it up, for which he appeared very grateful; but the instant it was done he started off again in search of his master.

"The storm passed quietly off as quickly as it had gathered; the sun again beamed brightly forth, and the howling hurricane died quietly away into a gentle breeze. Sabatisie launched the canoe; we stepped in, and were about to push off, when poor Bill came hobbling up the bank, and requested a passage. It appeared the Indian had seen, as we came down the stream, part of Howard's canoe high and dry on the rocks of the point from which we had first viewed the Moose; this he did not tell me until we were near the point, as I suppose he did not wish to increase my anxiety. For this spot we now made; and O! how my heart thrilled when I saw the shattered canoe strewed on the rocks. We landed and searched in every direction, but could discover no trace of our friends, and had almost given them up as lost, when a quick and merry bark from Billy renewed our hopes. We followed the sound, and soon found Howard and Adella; Billy, in utter contempt of his wounds, madly careering round them. Ours was indeed a joyful meeting; and now that the danger was past, we had a hearty laugh at the spree. It appeared that Howard and Adella, heedless of the storm, had struggled on in pursuit of the game. The foam and spray hid everything ten yards from

them, when on a sudden they came on the Moose standing on a shallow, and apparently terrified at the tempest. Howard instantly dropped his pole, seized his rifle, and fired,—the canoe flew round with the wind, and Adella losing all command of her, they threw themselves in the bottom as a last resource. The last thing they recollected was the canoe being dashed to pieces against a rock. When they came to, they found they had been cast by the force of the water many yards on the point, but had not received any material injury. When the dog found them they were on their way down the river, as Adella said he thought Sabatisie would run his canoe on the island, if he could escape the rapid. 'I am sure,' said Howard, 'I saw the Moose I shot at on the shallow, fall; in fact I was so near I could not well miss it. What think you, Sabatisie, have we any chance of finding it?' 'If brother kill him, he for sartain soon found; but guess meat now not very good —water in rapid very much strong, and rocks sharp.' 'Well,' said I, 'we are sure, I trust, of my fellow, as I much wish to send his noble antlers and handsome jacket to England, as trophies. They have a very poor opinion concerning the sporting in the Provinces, and very little better of that of the United States: indeed, I have seen it stated by more than one writer, that a gun is an almost useless article in these parts, as there is not any game worth mentioning. The fact is, these feather-bed sportsmen drive through the country, visit the principal places, make a few inquiries, take a short excursion, perhaps not three miles from the town, with a city sportsman, return fagged and disappointed, and in the bitterness of the moment pen a description of *Sporting in the Provinces*. Had any of these fellows been with us last June, Salmon-fishing in the *Nashwalk* —or July Trout-fishing at the river *Philip*—Woodcock-shooting in August, round *Horton*, *Cornwallis*, or *Anapolis*—Snipe-shooting on the marshes near *Gagetown* and *Musquash*—Wild-goose-shooting on the great *Tantramar*, in October—had they been at our memo-

rable Cariboo hunt, in January—or had they witnessed the way old Sabatisie *rigadooned* the Moose up *that rapid*,—I have some notion their tune would have been changed. But these men have not *pluck* to face the hardships of sporting in a wild country, and expect to find game on the post-roads. Come, Sabatisie, let us go in search of the Moose.'

"Howard and Adella started for the point where they were wrecked, in hopes of finding their guns, &c. We had not proceeded more than a mile, when we found the dead Moose high and dry on a small island in the middle of the stream. He was a splendid creature, at least sixteen hands high; his antlers were over six feet in the span. The Indian was not long in stripping off his hide, during which I set myself on the bank to enjoy a pipe. All trace of the storm had disappeared, save that the stream was turbulent and muddy, and a few small trees and broken branches strewed its surface. Not having room for the carcase, we were obliged to leave it, for which I have no doubt the Lynx, Foxes, &c., returned us many thanks. When we regained our comrades, we found they had been fortunate in recovering their rifles; but everything else was lost. A camp was prepared, and we turned in early, being much fatigued with the events of the day.

"The sun was an hour high next morning, before we could shake off our drowsiness. It was then agreed we should return to Anapolis, as we could not do much in one canoe. During our trip back, we had some good fishing and wild-fowl shooting; and so much were we pleased with the conduct of Adella, that we promised to meet at his camp in October, when, he said, he could show us *Moose-hunting* of quite a novel character. We remained part of one day with Adella and his pretty squaw, and then started for Anapolis, which we reached in good health and spirits, highly gratified with our excursion."

Having disposed, in the foregoing pages, of Moose

and Cariboo-hunting, during the summer and autumnal months, we come to their pursuit, at the period of the year when it affords the greatest sport and the keenest excitement to the true woodman, I mean the long winter of the northern regions.

So soon as the deep snows have fallen, and the whole surface of the country is overspread, throughout countless leagues of extent, by a covering often many feet in depth, obliterating all signs of cultivation, overtopping the loftiest fences, and rendering it toilsome in the highest degree for animals of the weight and bulk of the Moose and Cariboo, to travel over the yielding and unstable surface, and utterly impossible for them to obtain subsistence from the soil, these great Deer are wont to distribute themselves into parties, varying in number from three or four, to twenty and upwards, and to form what are called "*yards*" for their winter habitation.

This is done by trampling down the snow regularly, and in due form, over a tract of greater or less extent, according to the number of the troop which it is destined to house, until the whole area within is hardened into a consistency as solid as a threshing-floor, while the circumference is defined by the sheer walls of the upstanding snow-drift, which often accumulate to the height of several feet, by successive falls of snow.

These "yards" are generally formed in situations sheltered from the prevailing winds by large pines, hemlocks, or white cedars; and where there is a plentiful growth both around the circumference, and within the area of young evergreens, upon the juicy and succulent shoots of which they are accustomed to feed. Within the limits of these yards they regularly lie up at night, and feed during the prevalence of heavy snow-falls; nor, after they have once established them, do they absent themselves to a greater distance, unless disturbed by hunters, than is necessary to procure subsistence.

To discover the "lie" of these yards, is the great object of the hunter; and in Lower Canada, and Nova Scotia, in the vicinity of the garrison-towns, the Indians

seek them out with great skill and perseverance, well assured of receiving a handsome remuneration for their trouble, from the numerous sportsmen who are to be found in all her Majesty's regiments, and from the civilians of the British Provinces; in the country districts of which, generally speaking, many more resident gentlemen are to be found, than in corresponding regions of the United States, northward at least of the Potomac, owing to the settlement of much of the country, in military grants, by half-pay officers.

When a yard is discovered, and a runner makes his appearance in the settlements, or in a garrison, announcing the glad tidings, great is the bustle and excitement, and great the preparation among the old stagers, not less than the tyros; for a tramp after the Moose in the northern wilderness is no holiday's frolic for boys, but right strong work for stout men; and is not to be undertaken without due provision of the needful.

On some occasions immense sport is realized, and it rarely or never happens that the hunters, if they be willing to rough it, and be endowed with the thews and nerves of men, fail of success sufficient to compensate amply for fatigue and hardship.

"In the winter of 1842, twenty-three officers," as we are informed by Porter, in his edition of Hawker, "of the Grenadier and Coldstream Guards"—then in garrison at Quebec and Montreal—"killed during a short hunting-tour, *ninety-three* Moose! The Hon. Captain Grimston also killed a Cariboo, the only one shot by any of the hunters, though their tracts were seen by several of them. None of the parties were absent more than fourteen days from the garrison, of which not above six or eight were spent on the hunting-grounds."

A more remarkable fact was the killing of three Moose, a few years since, with a common fowling-piece, by an officer not reputed to be very crack as a shot, or very thorough-going as a sportsman on the *mountain*, within a few miles of Montreal, during a morning's walk from that populous city, in the pursuit certainly,

if not of *rats and mice*, of much *smaller Deer* than the gigantic and wide-antlered Moose.

My friend, Aleck B——, of the lower province, the best walker, by the way, and one of the best shots it has been my fortune to encounter on this side of the Atlantic,—in one day, if I mistake not largely, killed *seven* of these glorious animals on the River St. Maurice, in the rear of the pretty village of Three Rivers, all of which he ran into upon snow-shoes, after a chase of, I think, three days.

As it is necessary to encamp out during these chases, often for several nights in succession, and as it is very unadvisable to discharge a gun at any small game during these excursions, for fear of alarming the legitimate objects of pursuit, it is necessary to carry not only ammunition, but food, drinkables, spare clothing, and blankets, for several days' consumption and nights' comfort. These are packed upon small light sledges, or *toboggins*, as they are called, which are made of light wood by the Indians, and can be drawn along over the crusted surface of the snow, loaded with a weight of 130 lbs. either of provision, or of meat on the return march, by a single man on snow-shoes, without diminishing his speed, which may be reckoned at five or six miles the hour.

The provisions usually carried by sportsmen on excursions of this kind, consist of salt pork, mutton, sea-biscuit, coffee, and liquors, such as the taste of the party may suggest; and on these, with the aid of such condiments as sugar, salt, and pepper, a party may subsist, not unassisted by their good rifles, for many days, not only comfortably, but luxuriously.

The first thing to be done previous to starting is to don the snow-shoes, without which it is impossible to make any headway upon snow, and with which, when there is a stout crust, a practised traveller upon them will run down a Moose, even if alarmed, and at his speed, to a certainty, in a race of ten or twelve hours' duration.

It is no easy matter to walk on snow-shoes in the

first instance, and a good many tumbles are inevitable to a learner; but snow is a soft substratum whereupon to fall, and the choking up of gun-barrels, and the wetting of ammunition, is the worst evil to be apprehended. Before putting on the snow-shoes, a couple of pair of woollen socks should be indued, then a flannel slipper, and above that a regular Indian mocassin, the combined thickness of which will generally save the foot from being galled by the thongs of the shoe; though neither this, nor any other device, can ward off the much dreaded *mal à raquette*, or painful swelling of the ankle-joint, in consequence of the tension of the sinews, by the weight and drag of the large frame, when clogged with frozen snow, during a severe tramp.

For this practice it is the only sure preventive; though I have no doubt the pain and duration of the ailment could be much mitigated and diminished by the use of that most excellent remedy for all strains, flows, bruises, rheumatic affections, or the like, well known as BERTINE'S LINIMENT. I am never now without this invaluable lotion, which I have come to regard as an indispensable accompaniment to a sportsman's outfit, and which I strenuously recommend to all my readers, as sure to relieve them from much present pain, and likely to spare them a large doctor's bill in the prospective.

But to resume,—with the feet thus fortified, and a good pair of stout light snow-shoes, a good walker will find himself, after a little practice, able to travel both rapidly and pleasantly over the stainless snow of those hyperborean wilds, and to run down the great Stags of the North in their own frozen haunts.

No directions, nor aught but experience and practice, can teach the tyro this method of progression; but it is well to observe that the principal knack to be acquired is to throw the feet widely apart, so as to avoid kicking your own shins with the edges of the broad snow-shoe; to clear above a yard at each stride, so as to avoid treading with the heel of one shoe on the toe of the

other, which is sure to bring you on your nose; and to give a circular swing to the leg, which shall plant your foot to the ground somewhat in-toed, after the Indian fashion.

Immense speed can be made on the snow-shoe by the practiced runner; I have heard the rate of a famous Indian, when at his full lope on favourable ground, accounted as equal to seven or eight miles the hour, and this pace maintainable—to coin a word for the nonce!—for half a day, or better.

The best weapon for this sport is the rifle; and I cannot too strongly urge upon all amateur sportsmen the immense superiority, as a sporting implement, for quick shooting at game in motion, and especially in thick covert, of the comparatively short large-bored piece, carrying a ball, certainly not much smaller than 32, but 16 is far better, to the pound, *stocked after the manner of an ordinary fowling-piece*, and fired direct from the shoulder, to the long, heavy, ill-balanced, small-bored rifles, with a peaked heel-plate, which are ordinarily used in America.

However excellent these may be for very close practice, at very small marks, such as Squirrels, or the like, or for target practice from a rest, or with deliberate air, they are utterly ineffective for rapid snap-shooting at animals in quick motion; while for long shots, across wind especially, the smallness and lightness of their metal causes the balls to be blown many inches, sometimes even feet, to leeward.

Another objection is, that their pea-bullets have neither the weight nor the force sufficient to make the *bones crack*, though they may make the fur fly; and that the small orifice made by these little missiles, will often, especially in fat animals, close so completely over them, as to prevent the flow of blood, which from an ounce-ball wound will speedily exhaust the quarry, and bring him to the ground.

To shoot Deer, or large animals, with balls of 80, or even 120 to the pound, is an act of wanton barbarity,

as the stricken quarry will run for leagues with his death-wound from so paltry a missile, and the hunter shall lose his labour.

The best sporting implement of this kind in the world, is undoubtedly Purdey's double-barrelled rifle; and, although the use of these was at first ridiculed by the hunters and trappers of the West, its superior execution and utility is now fully admitted on the prairies, since it has been rendered current, and its value proved by British officers and sportsmen, especially by my old friend and school-fellow, CHARLES AUGUSTUS MURRAY, whose exploits with his double-barrelled ounce-ball rifle, still survive among the Red-skins of the far West, having gained him as wide a celebrity there, as his clever fictions have procured for him in the civilized world.

I am well aware that the lines I have last penned, will, in all probability, call down upon my head a burst of dissent, perhaps of anathemas, from the gents who make elaborate strings of half, and perhaps quarter inches from the rest, or even off-hand, with ponderous pea-rifles, fitted with *patent loading muzzles*, telescope sights, and all the last improvements of the Improved American Rifle. I am aware that these amateurs make marvellous shooting at the target; but I know also that target-shooting with ball is as different from Field or Forest-shooting, as Pigeon-shooting from a trap is different from game-shooting.

For the former, in both instances, iron nerve, good eyes, and long paactice, are all that can be desired,—for the latter much more is wanting; and there are hundreds of men who would shoot almost *nowhere* at a target, who shall beat your crack string shot, year in and year out, into fits, in the woods or on the prairie, as also may be predicated with regard to the trap.

The patent loading muzzle is of course out of the question, as regards war or the chase, unless in still hunting, where a man expects to get but one or two shots a-day. Such intricate and new-fangled apparatus, can rarely be put to account in real service.

The two-grooved rifle, with the belted ball—the belt fitting the grooves—by which the application of force to the bullet in loading, and the consequent wear and tear of the muzzle, are rendered unnecessary, is a most beautiful and effective weapon, even in the ordinary cheap form of it, which is carried by her Majesty's Rifle Regiments, and the flank-men of the Light Infantry companies.

Its range is prodigious; and I have been credibly informed, by those who should have known, that the practice of the Rifle Brigade is eight hundred yards. Whether this be exact or not, I have seen wonderfully accurate shooting made with it, by the ordinary rank and file of Infantry Regiments, at three and four hundred yards, and should consider my life as not worth five minutes' purchase, if set up at that distance before any one of fifty or sixty men of her Majesty's 71st Highland Light Infantry.

I am told that William Moore and William Gray, of the Edgeware Road, London, are doing marvels with double-barrelled rifles on this principle, and were I bound for the prairies, taking into consideration the rapidity and ease of loading, particularly on horseback, the simplicity of the engine, and the saving of friction, which I presume gives the extended range, I would prefer one of these beautiful weapons, to any implement of destruction in the known world.

Some able writer, on this branch of shooting, has observed, I think very correctly, that the difference between American and European, i. e. Scottish or Tyrolese rifle, shooting, consists mainly in this,—that whereas the American marksman, with a ball no bigger than buck-shot, or even smaller, will knock the eye out of a Squirrel at sixty yards, where the European would probably miss the animal altogether,—the latter, with his ounce bullet, will be nearly sure of a Man, a Red-deer, or a Chamois, at three or four hundred yards, when the former would not so much as think of firing at it.

This is true,—he might, however, have added, that the European being compelled to shoot altogether in the open, while infinitely inferior to the American at still or sitting shots, and off rest, is often as far superior at animals in rapid motion.

All these points can be traced to the circumstances of the case. Except on the prairies, where shooting is comparatively recent, the nature of the country precludes the possibility of long shots, since an animal can rarely be seen sixty yards off in the dense forests of America. The same dense covert gives facility for stealing on his game, and shooting it at rest, to the American hunter, which has led to his fabricating his weapon in that form which is best suited to a very sure, deliberate aim, at a short distance, rather than to rapid sighting, and quick firing. In the same manner, the difficulty of procuring ammunition, and of carrying a sufficiency of lead for the moulding of large bullets in distant and sparsely settled districts, afar from shops and civilization, have led to the adoption of the small bore and tiny bullets, by which a few ounces of powder, and a single pound of lead, may be made to subsist a hunter during a whole year in the wilderness.

The same cause has led to the habit of stealing warily upon the game, and never firing a shot until certain of a close and covered aim. This practice, however, like the rifle formed with regard to it, will not be found effective on the great open plains of the West, nor with any animal which must be hunted down by speed of foot, and shot while at speed, in lieu of being marked down by wary ambush; nor is this a mere theory of mine, for throughout the South and South-West, wherever the rifle is used in preference to the gun, and buck-shot, the *yager*, as it is called, or short-barrelled, large-bored piece, is universally preferred; and on the prairies the ponderous, unwieldy, long pea-rifle, is disused,—guns carrying less than thirty-five or forty to the pound being, as I am informed, at a discount.

I am not aware what weapon the United States Voltigeurs and Mounted Rifles carry, but I presume it is a plainly-stocked piece, without the crescent-shaped heel-plate; otherwise I cannot conceive the possibility of attaining any rapidity or regularity in platoon or volley firing. But enough of the rifle,—and these remarks will be all that are required on this subject, being equally applicable to every species of hunting of which I shall treat, but the more particularly so with the larger and more savage quadrupeds.

The next question to be considered is the sportsman's dress; and as it is in the coldest weather only that this sport is pursued, warmth is a *sine qud non*, while any apparatus of great coats, or the like, is so inconvenient and unwieldy, that it cannot be adopted in the field.

On the whole, the best rig is a red flannel-shirt, buckskin breeches and leggins, and an ordinary winter shooting-jacket and waistcoat, over which may be indued an Indian hunting-shirt of blanketing, and if this latter be pure white, from its similarity to the hue of the snow, it will, perhaps, be less conspicuous to the timid game than any other colour. There is, however, a coarse woollen stuff of a kind of *dead leaf* tint, manufactured by the *habitans* in Lower Canada, which is very well suited for the purpose. A fur cap will be found the most commodious head-piece.

The hunting-shirt should be confined at the waist by a leather belt, in one side of which an old woodman will stick his long, keen, stout-backed wood-knife, the blade of which should be about a foot long, by an inch and a half in breadth, while his little axe, or tomahawk, will occupy the other side, with its sharp head secured in a sort of leathern pocket, and the handle dependent on the thigh. It is a very good plan to have this handle made to taper gradually from the head, and to finish it with a sharp steel pike, which will admit of its being used as a stabbing weapon.

To the front of the belt it is usual to attach a large pouch of otter or some other handsome fur, similar to

the sporran of a Scottish highlander, in which to carry the bullets, patches, cleaning apparatus, &c., to which may be added on occasion, a flint and steel, pipe and tobacco, which will be found desiderata on such a march as I am describing.

The powder is most conveniently carried in an ox-horn, slung over the left shoulder so as to hang under the right arm, finished with a simple stopper. For in order to make accurate shooting, a rifle must be loaded with so nicely measured a charge of powder, that a spring-topped flask, of however excellent fabric, will not cut it off with sufficient nicety. Old woodmen, therefore, use a charger, hung by a thong or sinew from the collar of the hunting-shirt, by which the charge can be measured to a fraction; and this is by far the better way.

If carried in the manner I have described, none of these implements will be found burthensome or inconvenient; and as in expeditions of this nature, every man, who wishes to enjoy the cream of the sport, must rely on his own resources more or less, however well he may be accompanied or attended, especially in the crisis of the chase, many occasions will turn up, on which he will find, that far from being superfluous, the want of them might deprive him of substantial comforts, nay, might be the means of his losing his life. A wounded Moose, or Cariboo, is an ugly customer at close quarters; yet when the blood is up, men will go in, and bring it to the "hand to hoof" encounter, when all will depend, after the coolness and expertness of the hunter, on the nature and condition of his tools.

For those who would read brilliant fiction, founded, I doubt not, upon fact, and lively anecdote connected with this subject, and other topics of kindred interest, I cannot do better than refer to the articles by J. H. Willis, Esq., of Quebec, and of B. P. Wallop, Esq., of New Brunswick, the former well known for his admirable Salmon Fishing articles, published many years since, in the New York Albion, under the signature of

MILES, the latter as MEADOWS of the Spirit of the Times.

The anecdote related by the former, of Bob Millar, the Moose hunter, entitled "Close quarters with a bull Moose at night," is as brilliant and exciting a sporting sketch, in my opinion, as was ever penned; and I cannot but think it strange, that having such correspondents within reach, as Mr. Willis, of Quebec, Mr. Perley, of St. John's, N.B., Mr. Wallop, of the same Province, and many others, both officers and civilians, thoroughly competent to describe the fine Wild Sports of this Continent, the English Sporting Magazines should all rest content with publishing and republishing, *usque ad nauseam*, trite *fadaises*, on utterly exhausted subjects, such as Partridge Shooting in September, or Battues in December, concerning which all is known, and has been said, that can be eliminated by the wit of man.

The increased facilities of intercourse between England and this Continent, the proverbial taste of the English gentry to travel all distances, and incur all hazards in pursuit of Field Sports, and the continally increasing importance of the American Colonies, in which it is probable that a large English garrison will henceforward always be maintained, would, I am certain, cause information on American Sporting, which has of late years been unfairly undervalued, to be received with eagerness.

A little enterprise and spirit on the part of editors, would not fail to be duly remunerated by increased patronage; and I do not despair of seeing the names of some American correspondents attached to the articles in the Sporting Magazine, now that it has passed into the hands of "Craven."

That gentleman is, I know, well acquainted with the works of American Sporting writers, since he has done me the honour to insert in his "Sporting Recreations," some remarks concerning the difference of English and American game, published by me in the American Turf

Register, though credited not to *me*, but to a letter from an American sportsman.

This, by the way, is of late becoming a common practice in our good England. Mr. Carleton, in his Sporting Sketch Book for 1842, has published one article by the late Wm. Hawes—"J. Cypress, Jr." —describing a scene at "the Fire Islands," which lie at the eastern, or rather south-east end of Long Island, off the coast of New York, the great merit of which consists in its accurate allusions to topography, and its graphic pictures of Long Island Bay-men. This, Mr. Carleton, for reasons best known to himself, has attributed to a "Gentleman of Kentucky," thereby utterly destroying the whole pith and point of the article, and depriving it of all "*vraisemblance.*" An unfortunate little tale of my own, entitled "The Last Bear," the scene of which is laid in one of the river counties of New York, and which professes in itself to be written, as it was, by an Englishman, is quoted, again, as "A Scrap from the Sketch Book of a Rhode Islander,"—again making nonsense of whatever small degree of sense the article may have originally possessed.

Heaven knows! I am very willing that my countrymen should have the benefit of any little Sporting information I may have collected during a long residence abroad: and have no earthly objection that English gentlemen of letters, in compiling works on Sporting subjects, should republish my labours for their own advantage, as the selection of such articles implies preference, and is therefore in some sort a compliment. I do, however, most seriously protest, both in my own name, and in that of the Sporting brotherhood *here*, whether imported—like myself—or to the manor born, against being transmogrified into some strange fish which we never pretended to be, and against having our writings converted into silly balderdash, by glaring misapplication of names and places. What would not be the roar of laughter at home, should it be discovered that an American periodical had quoted part of Mr.

Scrope's fine work on "Deer Stalking," ascribed to a "Gentleman of Whitechapel," and represented as having come off on Highgate Hill, or in Epping Forest! Yet this is pretty much the way in which Mr. Carleton has dealt by me, and one or two others of my fellow-scribblers here.

But, *to return to our muttons!* The first thing to be done, in general, on a tramp after Moose or Cariboo, is to encamp for the first night, since it is rare that a single day's march carries the sportsman to the scene of action; and this process of encampment is one of the most exciting and spirit-stirring things conceivable, being by no means untinctured with a sort of rude, half-poetical romance.

The arms are stacked, or hung from the branches of the giant pines around the camp; the goods are piled; the snow is scraped away from a large area, and heaped into banks to windward; a tree or two is felled, and a fire kindled, which might roast a Moose entire; beds are prepared of the soft and fragrant tips of cedar and hemlock branches; and the party gathers about the cheerful blaze, keeping to windward of the mimic Vesuvius, while the collops are hissing in the frying-pan, the coffee is simmering in the camp-kettle, and the fish or game—if the Indians have found time to catch a salmon-trout or two through the ice of some frozen lake, or the sportsmen have brought down a brace or two of Ruffed or Canada Grouse—is roasting on wooden spits before the fire, with the rich gravy dripping on the biscuits, which are to serve thereafter as platters for the savoury broil.

Then comes the merry meal, seasoned by the hunter's Spartan sauce, fatigue and hunger; and when the appetites of all are satiate with forest fare, succeed the moderate cup of Cognac, Ferintosh, or Old Jamaica,—moderate, because the man is not, who can drink hard to-night, and walk hard, let alone shooting well, to-morrow,—the composing fumes of the hunter's pipe, replenished with "the Indian weed that briefly burns,"

and such yarns as are spun nowhere, unless it be in a forest camp, complete the tale.

Then while night is yet young, the fire is replenished, and wrapped snugly in their warm blankets, with their feet to the glowing embers, and their heads under the lee of the snow-banks, the party lay them down to rest under the azure canopy, and sleep more soundly, and awake more freshly, than princes who have courted rest on beds of down and purple.

Awake, while the stars are yet bright, and the air keen and cold, the brook, which last night tempered the goblets, this morning laves the brows, and replenishes the kettles, and a brief early breakfast precedes the quick tramp through the morning's gloaming.

Thereafter, a short halt at noon, and a council—for they have neared the "yard," and must manœuvre now to get well to leeward of it, for if a single Moose snuff the air tainted by "the human," farewell to sport to-day.

If all go rightly, if no tyro tread upon a cracking branch, or speak unseasonably, or show himself in his eagerness; if, having laid aside all impediments, cast aside packs, unharnessed toboggles, unbuckled snow-shoes—inapt machines for crawling serpentine over the snow, and among thick-set cedar saplings—the sportsmen can worm their way up, unheard and unsuspected, with the cocked rifle ready, to a spot which commands the yard, beautiful is the scene to witness, and magnificent the sport. The gigantic bulls are beheld within point-blank range, flapping their huge ears lazily, or scratching their heads with their great cloven feet, or licking their glossy coats, like cattle in a fold, while the cows are browsing the young fir-tips, or lying here and there chewing the cud lazily, secure of human intrusion, human cruelty.

Meantime, the posts are taken silently, each hunter chooses his own victim, and at a preconcerted signal, the rifles flash and crack, and all is tumult and confusion in the late tranquil yard. Some of the forest cattle are prostrate in their gore, shot mercifully dead out-

right, or, as the Western hunters term it, in their quaint prairie parlance, "thrown in their tracks;" other, severely wounded, are floundering to and fro in the snow-drifts, bellowing savagely, and showing desperate fight, if antlered males;—trumpeting piteously, and seeming to implore pity with their great soft brown eyes, if females; while those more fortunate, which have escaped the deliberate volley, are out of sight already, perhaps, ere this half a mile distant, in the boundless forest.

The keen knife bleeds the slain,—the tomahawk, or the reserved rifle-shot, finishes the wounded; and remember this, gentle hunter, never go up to your wounded Moose, or Cariboo, or even Deer, until your rifle is reloaded; for sometimes a slight hurt will stun the quarry for a moment, and the sight of his foe, close at hand, will give him power for a furious charge, or for rapid flight, ere hatchet or knife can reach him; and if they could, neither to bring down a charging bull Moose, nor to arrest a bounding Deer, will they avail the sportsman much.

But now, when the yard is broken, or before this, if the Moose have discovered the approach of their enemy betimes, and, as often happens, betaken themselves to flight, the tug of war commences. The snow-shoes are again buckled on, the rifles reloaded; and,—while the camp followers tarry in the rear, to butcher the game, and hang it from the trees, beyond the reach of the prowling Wolf, and then to bring forward the provisions,—away dash the hunters, with trailed arms, upon the track of the heavy Moose, deeply imprinted in the treacherous snow; for the crust which supports the light weight of the runners, mounted upon their broad-surfaced snow-shoes, breaks at every floundering stride beneath the ponderous bulk, and comparatively small and slender feet of the great Deer.

Yet even at this disadvantage, so immense is the power, and so unwearied the vigour and speed of this noble animal, that, even when it breaks through the crust fetlock-deep, it will often require a chase of three

successive days, at the best pace of a strong and active runner—and no one who is not strong and active can attempt this glorious sport—before the Moose is worn down so completely that its pursuers can run into view of it, and bring it down with a single ball, or even with a fowling-piece and buck-shot.

During the chase the excitement is intense, for a good woodman, or an Indian, can tell with great certainty, by the appearance of the track, the comparative hardness or softness of the snow at the bottom of the prints, the dung which is dropped during the flight, and other signs, how far ahead the animal may be at any period, and, consequently, how fast you are gaining on him. The Moose lays up at night; and when it has become so dark that you can follow the trail no longer, you also build your fire for the night; and your followers having brought up the toboggins with the meat and "provant"—which they do the more readily, that with the Indian instinct they can almost invariably foresee the course of the hunted herd, and cut off the angles, or run the chords of the circles described by the hard-pressed quarry—you pass the night encamped as before, and arise again refreshed, and like a giant again to run your course.

Then as the hunt waxes hot, the intense eagerness and excitement of pursuit still increases, nor does it lack the aliment whereon to exist; for as the herds in general follow the same line of flight, and all are not equally endowed with speed, pluck, and endurance, the younger, the weaker, and the unduly fat of the party, break down the first, and lagging in the rear—for in such a chase it is, indeed, the devil take the hindmost —are overtaken, and shot down by the foremost and fleetest runner, who, after finishing his victim with a thrust or two of his keen knife, and heralding his triumph to the followers by the proud "who-whoop!" speeds onward, almost maddened by the emulation and excitement, leaving to the laggers, who increase their pace at the rifle crack and death halloo! the care of breaking up and gralloching the mighty carcase.

This is the mode of Moose-hunting, whether you find him *in* his yard, or start from it unawares; or yet again, if you find the trail of his deeply-dinted foot, where he has wandered at his own will through the wilderness.

It is a sport for men, not to be assayed of babes or sucklings, and only to be enjoyed—without the aid of Indians or back-woodsmen—by the accomplished and experienced forester, who, with no provision but his rifle, axe, and knife, his tinder-box, his biscuits, and his salt, will fatten on the luxuries of the land, where the spruce city sportsman would unquestionably starve. Assisted, however, by Indians, or old hunters, any man, possessed of stout thews and sinews, long-winded, and accustomed to field-exercise, may embark on such an expedition as I have described, with the certainty, or something very like it, of enjoying glorious sports, and great fun beside. No particular fitness, or unusual powers are required, as is evident from the fact I have recorded above, of the great sport which fell to the lot of twenty-three officers of the Guards—for it is well known that the officers of that splendid corps are the flower of the English gentry, who live high, and sleep soft, and certainly are in no wise habituated to the hardships of a life in the woods—though, be it remembered, *en passant*, when need is to rough it, no man roughs it better or more uncomplainingly, than your thorough-bred English gentleman,—it is your cockney, who first gives himself airs, and everybody else trouble, and then gives—*out! Verbum sap.*

For the rest, no particular instructions are needed, nor can be given for this sport. The best place to aim at, when a fair shot presents itself on a Moose—or indeed on any animal—is the arch of the ribs, immediately behind the fore-shoulder, that is to say, at about two-thirds of the depth from the withers downward. If you are compelled to take the head, directly between the eyes in front, the root of the ear from the side, or the base of the skull from behind, are the deadliest marks.

At any animal of the Deer kind crossing you, at full speed, aim well forward; I should say at the forward point of the shoulder, and fire as the animal is *descending* in its bound; otherwise you will be likely to undershoot, and either miss it altogether, or only break a limb.

When a Deer, or Moose, runs a few hundred yards after being shot, it is a hundred to one against its rising again. On the contrary, when it falls instantly in its tracks, it has often received only a stunning or glancing wound, from which it speedily recovers, and, if approached incautiously, and with unloaded arms, often effects its escape.

When a Deer falls, therefore, if you have dogs with you, restrain them; if not, stand still yourself until you have loaded, which do as quickly as possible, consistent with due deliberation, and then step coolly forward, prepared for either fortune.

I advise no man to go in upon a hurt Stag, much less upon a Moose, or Cariboo, with knife or axe, although I have myself done so with a Hart, in order to save a favourite hound. It is, however, a foolish and useless risk; and I should have been severely hurt, if I had not been well backed, though I had good weapons.

The best place to strike with the knife, whether to terminate the agonies or to bleed a fallen Deer, is the jugular vein, about four inches below the ear, a little forward. But to hamper a hurt one at bay, strike with the edge at the ham-string, between the hough and quarter. This will disable him, and take the flight out of him most effectually.

The mode of hunting Cariboo differs in nothing from that of Moose, with this exception, that—owing to the inferior weight of the animal, and the pliability of his pastern joint, which bends so completely at every stride under him, as to afford a very considerable fulcrum and support in the deep snow—he is able to travel so much longer, and so much more fleetly, even in the worst

crusts, that it is considered useless to attempt to run him down, when once alarmed and in motion. He must, therefore, either be stalked silently from the leeward, or shot while in his "yard."

His flesh is said to be inferior to that of the Moose, which is to beef, as venison to mutton.

To those who are wholly inexpert with the rifle, and hopeless of using it effectively, a good double gun of fourteen, or—better—twelve gauge, heavily loaded with powder, and with an Eley's wire cartridge, *green*, of SSG mould shot, will prove a deadly implement.

At seventy to a hundred yards, it will throw fourteen large buck-shot into a circle of a foot diameter; and, if compelled—which the Lord forbid!—to fight a Grizzly Bear at close quarters, I would rather use such a gun so loaded, than any fire-arm known. At ten paces it will make a ragged wound, as big as the mouth of a tumbler, and send its shot through and through.

DEER HUNTING.

THE Common Deer of North America, *Cervus Virginianus*, differs entirely from all the European or Indian varieties of this order. It is smaller in size than the Red Deer—Hart and Hind—of the British Isles and the European Continent, and is far inferior to it in stateliness of character, in bearing, and in the size and extent of its antlers, which, moreover, are very distinct in form from those of the stag. This distinction consists in the fact that, while the main stem of the horn in the Red Deer invariably leans backward from the brow, with all the branches or tines pointing forward and downward, to the number of ten or twelve, in the American Deer it points forward and downward, with the branches arising from it backward and upward.

From the Fallow Deer of Europe, which I believe to have been originally introduced from the East, it differs in being much larger, and having branched, as distinguished from palmated horns.

Its flesh is much nearer akin, as indeed is its general appearance, to that of the Red than the Fallow Deer, being very rarely fat, and much drier, and less delicate, than that of the buck or doe. It is so very much larger than the Roebuck, and differs from it so greatly in all respects, that it is needless to enter minutely into the difference.

The venison of the American Deer is a very favourite meat, and is particularly famous for its tenderness, and easiness of digestion; I must, however, record my own opinion, that it is very much over-rated, as it appears to me deficient in flavour and fatness, and in no wise

comparable to good four or five year old mutton, which has hung long enough to become tender.

This beautiful animal abounded formerly in every part of this Continent, from the extreme North-east to Mexico, or even farther South; and it is even now found in considerable numbers, wherever the destruction of the forests, and the wanton rapacity of man, have not caused its extinction.

But a few years ago it abounded in the State of New-York, as far south as Orange, Rockland, and Putnam counties, but its range is rapidly becoming circumscribed; and, though a few scattered herds may be found still north of the Shawangunks, the sportsman must go to Greene or Ulster counties, Hamilton county, or the valley of the Chemung, and the head waters of the Alleghany, before he can be secure of sport. In New Jersey, a few are found yet on the highlands of Navesink, and perhaps a few on the mountains toward the Delaware river, but their number is small, and daily decreasing. To the eastward, they are still tolerably plentiful in the northern parts of Vermont, Massachusetts, and New Hampshire; and in Maine they abound in the great evergreen forests, their worst enemy there being the Wolf, as there is, perhaps, less of the sporting ardour to be found in the hardy and laborious natives of that fine State, than in any other part of the Union. The loggers and lumber-men may occasionally filch time from graver occupation to still-hunt, or fire-hunt a Deer or two, and in their leisure time may get up a hunt or two in parties, for a frolic or a bet—a hunt in which, by the way, every thing that flies or runs, from an Owl to a Skunk, is brought to bag promiscuously, and counted as game,—but hunting proper and scientific, I may say there is none.

What game comes into market is mostly brought by Indians, who watch patiently at the run-ways by the lake margins, and shoot the Deer as they come down to drink at dawn, and at nightfall.

From Pennsylvania, and the Western part of New

York, they are found everywhere to the westward abundantly, although such cruel and promiscuous havoc is made among them at all seasons, without respect for age or sex, that it cannot be distinctly said how soon they may cease to exist.

Up to the winter of 1836, they were found in thousands, in what are known as the *Beech-woods*, on the confines of New York and Pennsylvania; but in February of that year, hordes of savage rustic ruffians, profiting by the deep snows, and unexampled crust, went into the woods on snow-shoes, and literally slaughtered the helpless Deer, by droves, with clubs and knives, for the worth of their skins, the flesh at that season being useless. Since that time they have never gathered to any large head.

Such wanton brutality is inconceivable, and I cannot but believe that the *bipeds* capable of such butchery, would be equally capable of knocking a man in the head for his purse, could they do so undetected.

The Legislature of New York has done its duty in this matter, but their efforts, I fear, are destined to effect no good, such is the strange impatience of legislation, and the abhorrence of game laws, *quasi* aristocratical, by our rural population, and such the greedy selfish gluttony of our rich cockney snobs, who will support the illegal market, and uphold the criminal dealers and restaurants, who sell out of season.

The hunting of Deer, everywhere north of the Potomac, is, in my opinion, vastly slow work, lacking alike the animation, the pomp, and spirit-stirring bustle of the chase proper, and the quickly-recurring excitement, and rapid occurrence of game, peculiar to the shooting-field.

It is practised for the most part by two modes, driving and still-hunting, of which I consider the last, in general, by far the most legitimate and exciting, as it demands both skill in woodcraft, and endurance, on the part of the hunter; whereas the other requires only the patience of Job, added to enough skill with the gun to

knock over a great beast, as big as a Jackass, and as timid as a Sheep, with a heavy charge of buck-shot.

The former mode is practised almost exclusively in Pennsylvania, where the hunters are very apt to shoot hounds on account of their disturbing the forests, and driving the Deer off the ranges, as also in the southern tiers of counties in New York; on Long Island, and to the eastward, as also with some small variation of mode, in Hamilton county, and the northern section of the State.

On Long Island, especially, at Snedecor's and Carman's, where excellent hotels are kept for the accommodation of city sportsmen, it is usual to collect large parties, often numbering twenty or thirty guns. All the Deer-paths and run-ways are perfectly well known to the hunters and drivers, and the comparative excellence of them thoroughly ascertained. The stations at these are, therefore, meted out by lot to the sportsmen, some of whom have thus a fair chance of getting a shot in the course of a whole day's weary watch to leeward of Deep-path, while against others the odds are, perhaps, a hundred to one against their so much as hearing the distant bay of a hound.

Meantime the hounds are uncoupled, the drivers enter the woods, and endeavour to force the quarry to the known passes, at which the gallant cits wait patiently, or impatiently, as it may be, with little or no excitement; beyond the knowledge, that if they are detected indulging in a cigar, or in firing an unwise shot at any passing small game, much more in being absent from their stand when a Deer—if any—crosses it, or missing him if present under arms, they will be fined a dozen of Champagne at dinner, for the benefit of the company; whereas, if they succeed in killing Hart or Hind, they will be rewarded by the hide and horns, and by the permission to buy the venison at auction in the evening, if they bid more for it than their unsuccessful neighbours.

I was once present at one of these *Epping hunts* of America's cockneys, and I most assuredly shall never

be present at another. There is certainly no sublimity about them, unless it be the sublimity of the ridiculous; and I believe that now-a-days few persons worthy of the name of sportsmen honour these travestied battues with their presence. High living by day, high play at night, soft pillows in the morning, with just enough sporting to serve as an excuse, are the great inducements to New York gunners to visit "the Island," unless it be for Fowl-shooting, which is really fine, and a sport worthy of a sportsman, or for the kindred amusement of Trout fishing with the fly, in waters which it is no easy matter to surpass anywhere, either for the excellence of their stocking, or the quality of their fish.

For the rest, I can conceive nothing more lugubriously dull than a Long Island Deer-hunt. It is just the thing for a Broadway dandy, and for nothing on the broad earth beside.

In Hamilton county, among the fine bright lakes, the pellucid rivers, and the great breezy hills, although the order of the day is still driving, it is a very different affair, leaving much, almost everything indeed, after the Deer is started, to the energies, the tact, and the activity of the hunter.

He is stationed, indeed, at the first, by a run-way, where it opens on the lake, or river—that which the guide deems the best; but when the deep bay of the Staghound, bellowing through the passes of the mighty mountains, and repeated fifty-fold by the sportive echoes, gives note that the game is afoot, the hunter must shift his place, as the music sweeps onward over rock and through ravine, now bounding, rifle in hand, over stock and stone, with gait swift at once, and stealthy,—now making his light skiff, or yet lighter bark canoe, glance over the clear waters, with strong-pulled sculls, or deftly-managed paddles, and owing it to his own speed and skill in avoiding the sight or the scent of the hunted quarry, if he gets it within rifle range.

Again, if it take the water boldly, as it will often do, and swim, across from shore to shore, there is a race *in*

view, with all dependent on the individual faculties and personal prowess of the sportsman, producing all that consciousness of power, that emulation against the rival crew, that rapture of pursuit and strife, that triumph of success, which constitutes the chiefest pleasure of the hunter's toilsome life.

Then nothing is lovelier in nature than the lone passes of the Adirondach highlands, with all their pomp of many-coloured autumn woods, piled tier above tier into the pale clear skies of Indian summer, with all their grandeur of rock-crowned peaks, almost inaccessible. TAHAWUS, NODONEYO, or OUKORLAH, names exquisitely significant, as grandly sonorous in the old native tongue, but now degraded and vulgarized into the Mount Marcy, Mount Seward, and Mount Emmons —names equally unmeaning, and small-sounding, of political surveyors—and all their broad and bright expanses of island-studded lakes, refulgent to the hazy sunshine.

Here there is no work for the feather-bed city hunter, the curled darling of soft dames. Here the true foot, the stout arm, the keen eye, and the instinctive prescience of the forester and mountaineer are needed; here it will be seen who is, and who is not the woodsman, by the surest test of all—the only sure test—of true sportsmanship and lore in venerie, who can best set afoot the wild Deer of the hills, who bring him to bay or to soil most speedily, who ring aloud his death-halloo, and bear the spoils in triumph to his shanty, to feast on the rich loin, while weakly and unskilful rivals slink supperless to beat.

For those who would read stirring sketches of these things and places, given apart from instruction in the most spirited and graphic tone, whether of prose or verse, I cannot do better than refer to the works of my friend, C. F. HOFFMAN, whose SACONDAGA DEER-HUNT, and LAYS OF THE HUDSON, bespeak at once the accomplished woodman, and the almost inspired poet.

I now come to the still-hunting of Pennsylvania and the West, a sport, which though entirely divested of the fascination derived from the music of the hounds, or the melody of the horn, from the excitement of swift pursuit, or the thrilling eagerness of a chace in view, has yet its own peculiar charm, from the wildness and solitary nature of the haunts into which it leads you, from the strange and almost mysterious skill which it requires, and from the pride of conscious ability which you derive from tracking up a blind trail, by signs wholly invisible to unfamiliar eyes, to a successful and triumphant issue.

No written instructions can give this lore to the tyro; nothing but long practice, and the closest experience, can give to the eye of man the ability to follow the path of the devious and pasturing Deer, through every variety of soil and surface, with a certainty as unerring as that attained by the nose of the Bloodhound.

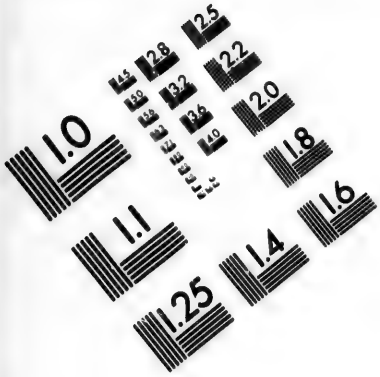
The least foot-print on the moist earth, nay, the merest puncture by the sharp extremity of the cloven hoof in a displaced dead leaf, shall tell the experienced eye how long since, at what pace, whether sauntering in pursuit of food, or dallying with his hinds, or flying from his foes, the noble hart has passed, and thence whether the pursuit is worth trying, and success possible. Not the bark of a birch-tree frayed by his horns, not a dew-drop dashed from the brushwood, not a leaf browsed, or a moss-tuft ruffled on the fallen cedar, must be unnoticed, not a well-head in which he might have drank, or a stream-pool in which he might have wallowed, must be unvisited. The slightest variations of surface, the changes of the growth of timber, the qualities of the lying-ground and the feeding-ground, the hours of the day, the situation of the sun, the shifts of the wind, must be known and noted. The wisdom of the serpent and the stealthiness of the cougar, crawling upon his prey, must be imitated; and to one truly skilled, and endowed with all the qualities of head and hand, of eye and foot, the patience of hunger and thirst,

the endurance of fatigue, and the indifference to heat or cold, there is no surer method, and certainly to my apprehension, none so sportsmanlike or scientific, practised in the Eastern, Midland, or Western States, as still-hunting, which may indeed be dignified by the name of AMERICAN DEER-STALKING.

It is, however, so difficult, that an apt and observant scholar shall require many seasons of apprenticeship to a wise woodman, ere he may hope for the least success in attempting it unaided; and for a long time must be content with following silently in the steps of his skilful guide, straining every faculty to discern the signs which he literally reads as he runs, and must be satisfied at first to be told and taught, by slow degrees, the various symptoms by which he shall one day unerringly pronounce on the size, the sex, the weight, the rate of progress of the animal; and last, not least, of the length of time which has elapsed since the impress of the track, which alone can guide him on the soft forest soil, or in the streamlet's bed.

For a long time, it shall appear marvellous to him, indeed, when, after winding to and fro, perhaps for an hour or two, among the monstrous stems of the tall timber trees, or through the deep alder brakes, or upland tracts of dwarf-pine, he is told in a guarded whisper to make his rifle ready, and crawl warily over the brow of this hillock, or to the brink of that dell,—for, sure enough, the Deer are at hand; and, still more marvellous, when he is set within twenty or thirty yards of the unsuspecting quarry, and bade to take his time and make sure; and yet most rapturous of all, the moment when the quick rifle cracks, and the stricken hart bounds aloft, death-wounded, and falls headlong.

Yet all this thou, too, mayest attain, mine adventuturous reader, if thou wilt take patience to be thy rule of conduct, and a wise woodman to be thy guide, and wilt eschew soft sleeping and high feeding for a time, and exchange city luxuries for forest fare, and model thyself after the fashion of a man, not of a *Mantalini!*



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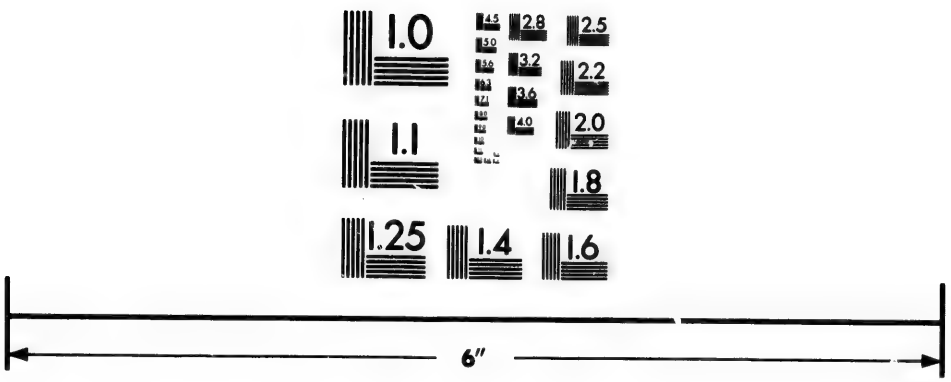

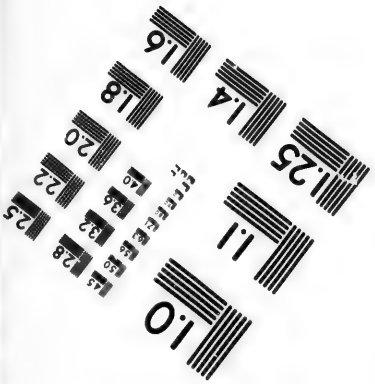

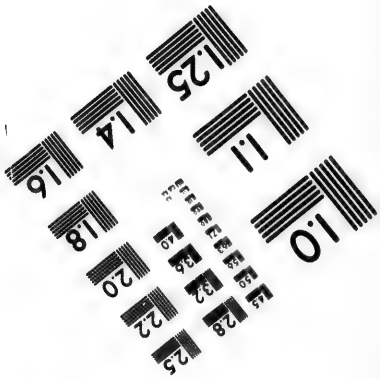

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Success and speed to thee, if thou assay it; and of this be sure, that thou wilt not rue the adventure, either for the manhood thou shalt gain, or the fun thou wilt find in gaining it.

In order, however, to enjoy Deer-hunting in anything like perfection—for, after all, here, to the Northward, it is practised ninety-nine times out of a hundred, as it is in the West—I had almost said *altogether*—as a means of obtaining venison, and not for sport's sake—we must go into Virginia, into the Carolinas, Louisiana and Mississippi. There we find the gentlemen of the land, not pent in cities, but dwelling on their estates; there we find hunters, *par amours*, if I may so express myself, and packs of hounds maintained regularly, and hunted with all legitimate accompaniments of well-blown bugle and well-whooped halloo; with mounted cavaliers, fearlessly riding through bush, through briar, over flood, over mire, taking bold leaps at fallen trees and deep bayous in the forest-lands, at sturdy timber fences or dense hedges and broad drains, if the chase lead across the open; and riding, one against the other, as fearlessly and as desperately, for the first blood, or the kill, as they do in Old England, in Leicester or Northampton, to the Quorn hounds, or the Squire's lady pack.

This is *the sport*, par excellence. He who has ridden once to a good pack, in the open, over a good scenting country, with a well-bred one under him, whether the game be "*pug*" in England, or a ten-antlered buck in Carolina, will hold Deer-driving or Deer-stalking as mighty slow sport in all time thereafter.

It is true that, in the South, the fowling-piece and buck-shot is a part of the hunter's equipment, and that the aim of the rider is to come within gun-shot of the buck,—not to see the hounds run into him fairly; but this is unavoidable, from the woodland and marshy character of the country, and from the consequent impossibility of riding *up to hounds*, for any considerable length of time, or, in any event, through a whole run. The Deer know too well their advantage in the covert to

attempt more than an occasional burst across the open; and, therefore, the mounted hunter's skill is oftener taxed to make happy and knowing nicks, whereby to ride the chord of the arc, or the hypothenuse of the triangle on which the hounds are running, than to hold his own across the open, neck and neck with the leading dog, taking everything in his stride, with a firm foot in the stirrup, a light hand on the rein, and an easy seat in the saddle. And a thorough knowledge of the country, added to good horsemanship, will generally beat the greatest nerve in riding and the best horseflesh, if the nag be not piloted by one who knows the lay of the land.

Still desperate runs and desperate riding do occur, and *me judice* HARRY W., of South Carolina, for whose "workman-like style of putting a certain small bay horse over the country," Mr. Porter vouches on page 351 of Hawker on Shooting, describes there and thereabouts as pretty a burst which he rode on "Daredevil," in Mississippi, as I have ever seen from "Billesdon Coplowe," "Misterton Gorse," or across the "Whissendine."

This sport I have never had the fortune to enjoy on this side of the water, though I trust that I may do so during the coming winter, after which, I dare say, I shall find reason to alter my present opinion, which decidedly now leans to the side, that Deer-hunting in America is rather slow work.

I have no remarks to make on any of these kind of sports, except to hint to stand-shooters for Deer, that they cannot too carefully adapt the colour of their clothes and caps to the prevalent colours of the foliage at the time being, and to stand perfectly still when a Deer is approaching. These animals, timid as they are, will often come directly up to a man in full view, if he move no limb, and more especially avoid turning his head, when they will stop short, and dart off at a tangent on the slightest motion of a person, who may flatter himself tolerably well concealed by brushwood or other covert.

In shooting at a Deer on the leap, with a gun and buck-shot, even more than with a rifle, shoot well forward, and low, as the animal descends from its bound; and, in shooting from horseback, at speed, bear well on your off stirrup, if firing on the nigh side, and, *vice versâ*, bearing hard with your hand on the rein to which you shoot. The cause of this advice is obvious—the body is naturally thrust forward in the direction toward which you present your gun, and the best broken horse will swerve a little from the sudden flash. Your business is to balance the tendency of your own body by the bearing on the stirrup, and to check the swerve by the rein.

No one should attempt to ride across country *without* a double bridle, snaffle and curb, or *with* a martingale.

Fire-hunting is a style of hunting, or rather poaching Deer, which, I suppose, I must mention, as it is largely practised in many regions of country; and, being very destructive, and very certain, has many votaries,—but I confess that I am ashamed to do so, and must regard it as utterly unsportsmanlike and butcherly.

This fire-hunting is performed in two manners; one, the most usual, is to build a fire of pine-knots on a grating in the bows of a canoe, with a sort of wooden screen behind it, immediately in the rear of which the murderer sits with his ready rifle, while his comrade, seated in the stern, propels the light vessel along the channel of deer-haunted rivulets, or along the margin of forest lakes, at which they descend to drink. Astonished by the fire-light, the animals stand stupidly at gaze, until the red glare, falling upon their eye-balls, shows them to the concealed rifleman, who levels his deadly piece, at ten or twelve paces distant, between their gleaming orbs, and rarely fails to kill a buck at every shot.

The principle of the other method is identical, allthough the *modus operandi* is slightly different:—A scaffold is erected, about four or five feet in circumference, and high enough to admit of the hunter's

sitting under it; this is covered with sticks, bark, and a thick layer of earth, upon which a bright fire is kindled, of pine-knots, as before, while a screen of branches is erected about it to conceal the persons of the crouching hunters. These preparations are made in the vicinity of one of the salt springs, or *licks*, as they are called, which are so eagerly sought out, and so much frequented by Deer; and the animals approach with the same disregard of, or, perhaps, I should rather say fascination by the fire, for which they are remarkable.

The great drawback to this species of sport, apart from the not slight odour of pot-hunting which attaches to it, is that other animals than Deer often approach the treacherous blaze; and instances are not uncommon of hunters shooting their own horses and cattle—nay, every now and then, their own companions, sisters, and sweethearts.

There is nothing of fair play about it. It is a dirty advantage taken of the stupidity of the animals; and, apart from its manifest danger, ought to be discountenanced.

The last mode of Deer-hunting to which I shall allude, is what is called in some of the Western States —in which there are large tracts of wild prairie land, dotted with clumps or islands of brushwood and timber bouncing them. This is done by driving them, by means of an old slow hound, into the open, and then pursuing them by relays of horsemen, in the hope of getting a shot.

A far finer sport, and one for the neglect of which I cannot account, would be to slip a brace or a leash of good Greyhounds on them, the instant of their breaking covert. I do not doubt in the least that high-bred dogs would run into them, after a course of a mile or two over the open, than which I can conceive no sport more exciting, no sight more beautiful.

But, should the common Greyhound prove too weak to pull them down, which I do not believe would

be the case, the rough Scottish Deer-greyhound would do so undoubtedly, and, moreover, uniting scent to speed, would hunt the Hart down, should he run out of view.

The Scottish Deer-hound, or Streaker, as he is sometimes called, is a cross-bred, not an original dog; and may be bred thus:—

To a very large Foxhound bitch—black and tan, if possible—put a tall, high-bred Greyhound dog; to the best bitch pup of the litter, put a Newfoundland dog,—or, better yet, if you can find one, a rough-haired Colley, or Scottish sheep-dog; again, to the best bitch pup of this litter, put a tall, high-bred Greyhound dog. The result of this fourth cross will be a very tall and powerful litter of dogs, possessing almost all the speed, with the form and grace, of the Greyhound, the shaggy hair of the rough breed, and the scent and indomitable courage of the Foxhound. I would rather have two couple of such dogs for sporting in the far West, than the best pack of hounds that ever opened on game.

One of them, single-handed, will pull down a Red Stag of the first head, or throttle a Wolf; and I would back a brace to bring to bay any Elk that ever ranged westward of the Cross-timbers, in a mile's course.

They are intelligent, handsome, hardy dogs, and will be found vastly useful. The Newfoundland, or Sheep-dog cross, may be dispensed with; but it renders them handsomer, hardier, and more intelligent than the mere double cross of Greyhound upon Foxhound—it also gives them some of the powers of the water-dog, and adds to their courage. A dog so bred, it will be remembered, combines, in some degree, the qualities of each of the three great natural divisions into which zoologists have distinguished the order dog, *canis*,—viz., *veloces*, the swift runners, entirely or nearly devoid of scent; *pugnaces*, or fighters; and *sagaces*, or intelligent,—having, in their composition of four crosses, two of speed, one and a-half of intelligence, and one-half of *pugnacity*, from the Foxhound.

I should earnestly recommend my friends and readers of the Western Prairie States and territories, to try this combination—I could almost vouch for their compensating the trouble, by the sport they would shew; but, apart from these, I should urge the gentry of St. Louis, and places similarly situate, to try a kennel or two of Greyhounds. I can discover no reason why, among a population so spirited and so fond of field-sports as the Western men, Greyhound coursing of Deer, with all its excitement of plates, cups, matches, and handicaps, should not be got up in as fine style as at Swaffham, Malton, or Newmarket, and in so much finer, as the Hart is a nobler animal than the Hare, and the illimitable prairies of the West a wider field for sportsmanship than the Yorkshire Wolds, or the Chalky Heaths of Suffolk.

Before closing this branch of my subject, it will be naturally expected that I should say something concerning the habits and the mode of pursuing the Black-tailed Deer. In truth, however, so little is known, comparatively speaking, of this fine Deer, that I cannot enlarge upon the topic. It is found only westward of the Mississippi, in the vast plains which constitute so large a portion of that country, up to the base of the Rocky Mountains, and beyond them, to the shores of the Pacific. It is shot in the same manner as the common Deer, by stalking it, which is more than ordinarily difficult, from the fact, that it is rarely found in the woodland districts, preferring the wide prairies, on which its quick eye and discriminating nostril can detect an enemy at above a mile's distance. The observations I have made in relation to the use of Deer-hounds, are even more applicable to this, than to the common species, from the nature of the ground that it inhabits.

But my limits warn me to abstain from farther discussion of Deer-hunting, a subject to which I hope I have done justice, albeit it is not a favourite field-sport of mine,—for nobler quarry, the Elk, the Bison, and Bear, are summoning me angrily Westward, and the Wild Turkey will not be forgotten.

BISON AND ELK HUNTING.

ONCE ranging over every part of the United States, from the Hudson River and Lake Champlain, westward, to the Pacific Ocean—unless it were a few forest districts on the Atlantic seaboard—both of these noble quadrupeds are now confined to narrow limits, gradually narrowing more, in the far West;—neither of them being found in any numbers eastward of the Mississippi, unless it be true, which I doubt, that a few Elk still exist among the forests of North-western Pennsylvania.

The northern limits of both these animals appear to be nearly identical; neither of them, it would seem, having ever existed to the eastward, north of the Great Lakes, though west of Lake Winnipeg they have both been killed, so far north as the 50th degree. Southward, they extend over all the prairie lands, so far as Texas,—but into the wooded country and canebrakes of the South-western States they do not often intrude themselves.

An Elk of great magnitude, was, however, killed a few years since in Louisiana, between Roundway Bayou and the river, by a party of gentlemen, one of whom is a particular friend of my own, the dimensions of which are so enormous as to deserve particular mention.

Its gross weight was 704lbs.; its length, from the tip of the nose to the hinder hoof, 11 feet; height at the withers, 5 feet 4 inches—*sixteen hands;* length of antlers, 4 feet 2 inches; width of antlers from tip to tip, 2 feet 6 inches.

It appears to me, however, that the great male Elk, exhibited under the name of Wapiti, in the Egyptian Hall in Piccadilly, which was trained to draw a gig—the females being broke to the saddle—was yet larger than this animal. If I err not, it measured nearly eighteen hands.

I had the good fortune, while a boy, at Eton, to enjoy frequent opportunities of observing a small herd of these magnificent Deer, in the paddocks of Lord Glenlyon, at Datchet. There were, if I remember rightly, two great Stags, and ten or a dozen Hinds, the latter being so tame as to eat anything, particularly bread or apples, of which they were very fond, out of the hand. They were imported, as I understood, for the purpose of being naturalized in his lordship's Highland estates; but whether that project was carried out I cannot state. They were kept within very lofty and very strong enclosures; and I was told that, during the rutting season, the males were exceedingly dangerous and savage, and that they would attack a man during their *œstrum*, without any provocation. This I by no means doubt, as the common Red Deer, and sometimes even the Fallow Bucks, which are so much smaller and more timid, will, at the same season, occasionally attack intruders on their haunts.

In the description I have quoted above, of this animal, from *Godman's American Natural History*, there is a long description of, and discussion concerning the suborocular sinuses, or longitudinal mucous slits beneath the eye in this animal. I have only to observe, in relation to this, that similar sinuses exist in almost all animals of this genus, and that it is universally believed that they do contain an apparatus to facilitate inspiration and exhalation during moments of great exertion. That singularly ingenious and observant naturalist, the Rev. Gilbert White, of Selborne, whose work on the natural history of his own parish is one of the most valuable and delightful books in the English language, states distinctly, either of a Hind—the female of the Red

Deer—or of a cow Moose, which he had an opportunity of examining, but I think of the former,—I have not his book beside me for reference,—that, on an orange being offered to it, it smelt and snuffed at it alternately with the nostrils and the subocular sinus; and further, that he saw the same animal breathe through these sinuses for a considerable length of time, while drinking very greedily, with both nostrils completely submerged in the water.

An observation of the habits, in the live animal, in such cases, is far more satisfactory than any examination by means of dissection, as small ducts may easily be overlooked, or their nature mistaken.

I understand that a large herd of these noble Deer are kept in a state of semi-domestication by a gentleman who possesses a fine park and demesne in the neighbourhood of Lexington, Kentucky; by his aid this disputed matter might readily be investigated to demonstration.

Neither the Elk nor the Bison are ordinarily hunted with hounds,—the latter, I believe, never. The former has been run to bay, with great success, by my friend, Mr. SIBLEY, of MENDOTA, near St. Peters, on the Upper Mississippi; by aid of his celebrated Scottish Deer-hounds, Lion and Boston, on which fact I, in no small degree, found my opinion of the great sport that might be had, and the great addition that might be made to the spirit and excitement of Western hunting, by the introduction of this fine and gallant breed of dogs.

The only other instance I know of the use of dogs with the Elk was in the case of the great monster killed in Louisiana, as described above.

There can be no doubt, however, that the use of dogs is perfectly applicable either to the Elk or the Bison. The latter animal is, we are assured, constantly assailed by Wolves; and no person who is at all acquainted with the wonderful instinct frequently displayed by the particular breed of dogs I have described, both in singling individual Red Deer out of herds, and in sticking to the

slot of wounded Harts, through the midst of whole companies of Hinds, and bringing them to bay unerringly, even when they have taken flight down the shallow beds of mountain torrents, can doubt their utility both in separating marked animals from the droves or gangs, and in preventing that very frequent, and, to the humane hunter, painful catastrophe, of wounded brutes going off to die alone in untended and protracted agony.

As it is at present, the Bison and the Elk are attacked in two modes only—either by stalking them on foot with the rifle, which must be an exceedingly animating and exciting, as well as a very difficult and laborious task, the objects of pursuit being in full view of the hunter all the time, and his approaches being necessarily made over the bare and nearly level surface of the prairie, with nothing to conceal his stealthy advance but the scanty shelter of the coarse grasses, unless he be so fortunate as to find the channel of some water-course or ravine, down which he may wind upon his watchful quarry.

His advances must, of course, be made *up-wind*, as the scent of both these creatures is inexpressibly acute, as is also their sense of hearing; and, at the least alarm, they are off like the winds of heaven, no man knoweth whither.

This is the only species of stalking practised on this continent which bears any sort of analogy to Red Deer stalking in the Highlands of Scotland, and this closely resembles it in all essentials,—though, in one respect, it is easier, and, in another, more difficult and arduous than the still sport of the Gael.

In the first place, horses can be used by the stalker of the American Elk or Bison, until the animal is discovered on the far horizon, by aid of the optic glass, or the nearly as telescopic eye of the Western hunter. Secondly, the ground being generally level, or broken only by long, wave-like swells and ridges, the toil is not comparable to that of climbing the crags and breasting

the heathery mountains of the Caledonian deer-forests. Thirdly, the stalker is not baffled by those singular swirls, eddies, and currents of air, which so perplex him by their shifts and veering among the glens, gorges, and corries of the Scottish hills, often bringing him dead to windward of his game, and baffling all his hopes of a shot, when he has been manœuvring for hours to work well to leeward of some grand Stag royal, and is already flattering himself that he has succeeded. Thus far the prairie-stalking is easier than its correspondent sport among the hills; but, inasmuch as the grass of the prairies affords far less covert for the stealthy sportsman than the tall moorland heather,—and as there are neither crags nor cairns, beneath the friendly shelter of which to wind the devious way, and as yet, again, the water-courses and hollows of the great Western Plains are neither so numerous nor so deep as the stony rifts and gullies of the mountain torrents, it is harder to approach the American than the European game. To take the two sports all in all, the pros and cons as to the difficulty would seem to be pretty evenly balanced, and it is very clear that no bungler or milksop can succeed at either game.

The best weapon for stalking either of these animals on foot, is undoubtedly the heavy ounce-ball rifle, both from the greatest certainty of its execution at very long ranges, and especially across wind; and from the fatal nature of the large wound inflicted by its ponderous missile. At no sort of game would the double-barrelled, two-grooved rifle I have mentioned, give a more decided superiority to its bearer, over the small-bored, poly-grooved, ill-balanced, single-barrelled piece of the Western trapper, than at these monsters of the wilderness.

In case, however, of the game taking alarm before the hunter can get within range of it, or of his coming upon the drove of Bison or gang of Elk, while it is in motion, he exchanges his travelling horse, or sure-footed mule, for his swiftled thorough-bred,—his Buffalo runner, as

it is termed in the West,—and charges down, at full speed, upon the terrified and scattered herds.

If he be well mounted, he soon finds himself in the middle of the huge, hairy manes, stunted horns, and glaring eyes of the terrible and vicious-looking, but, in reality, terrified and timid Bisons; or, after a faster and longer gallop, of the tossed antlers and sleek coats of the fleeter Elks.

Of the former, he picks out the fattest cows, and galloping up alongside of the huge, walloping, unwieldy mountain of flesh, till he is, as a sailor would say, yard-arm and yard-arm with his enemy, discharges his double gun, loaded with buckshot—for my use, I would choose Eley's wire cartridges of the largest slugs—or the heavy holster-pistols—one or other of which weapons, for the horse-chase, is considered preferable to the rifle—under the foreshoulder, until it falls, when he passes onward to another and another, leaving the fallen victims to be slaughtered by the laggards in the rear, and often killing his half score of these vast cattle of the wilderness, in a chase of a few hours' duration.

A wounded bull will, it is true, occasionally turn round and charge, but his lumbering rush is easily avoided by the swift and agile swerve of the trained charger, which is generally broken to wheel aside the instant the shot is fired; and the danger, in truth, is infinitely small, when considered in reference to the gigantic bulk, immense power, and formidable appearance of the Bison bulls.

In fact, all the peril consists in the twofold risk of the rider, if dismounted by the action of firing, at the moment of the courser's swerving, being cast upon the horns, or under feet of the infuriate bull; and of the horse, in the act of springing sideways from the charge of one bull, crossing the counter of another, unseen, so close as to be overthrown by him.

The charge of the Bison is, however, but a momentary spirt, and is rarely protracted above a few paces in length,—nor are instances wanting in which a rider,

dismounted, as I have described, and cast sprawling on the earth within ten feet of the enraged monster, has succeeded in deterring the giant from his attack by the mere majesty of the human aspect, and the power of the human eye, which, when calm and undaunted, cannot, it would seem, be endured by any of the inferior creation. An escape of this sort is brilliantly related as having befallen himself, by the gentleman I have mentioned before, who is probably the best amateur Bison and Elk-hunter in America.

There is, however, more real danger arising from falls of the hunter's horse, when at speed, from treading in the burrows of that species of marmot, known as the Prairie dog; or from plunging down impracticable descents, or attempting leaps at impassable ravines, than from the horns and hoofs of the Bison, or the antlers of the Elk, who is a far more dangerous customer when hurt, than his more bulky and savage-looking comrade of the plain.

The large revolving pistol is rather a favourite weapon in the chase of the Buffalo; but I confess a prejudice against it, first, as being very complicated, and therefore liable to get broken or disordered, in which case it cannot possibly be repaired,—whereas any armourer can set a common percussion firelock to rights, if injured; and, secondly, because I have no confidence in their steady and regular execution. I understand that they have been found to work very well, especially by the Rangers of Texas, during the late Mexican campaigns; but I confess, unless against *men*, with whom the *prestige* is everything, and the quick repetition of shots a thing dreaded, I would infinitely rather depend on a brace of good ten-inch duelling-pistols, carrying balls of thirty-two to the pound, than all the revolvers in the world. This is, however, a matter of opinion and taste, and I am led to believe that Colt's weapons have been improved since I tried them. But when I did so, a few years since, I constantly found them failing to revolve at all, or if at all, truly, in consequence

of the caps being driven backward by the explosion, and falling down between the cylinder and the breech, so as to make a jam. The best of these weapons, by all accounts, is the largest pistol. The rifle is cumbrous and unwieldy—the fowling-piece, I believe, was instantly abandoned; at all events, it is preposterously and self-evidently useless.

For Prairie Sporting in general, I should recommend, as an all-sufficient armoury, a double-barrelled, two-grooved rifle; a short, heavy double-barrelled gun, say 30 inches in length, 12 gauge, and at least nine pounds weight, with a pair of good ten-inch, smooth-bored pistols, all *of course*, on the percussion principle; for I perfectly agree with Mr. SIBLEY, that any man who calls himself a sportsman, and uses a flint-lock gun, when he can get a percussion, "should be considered a fit subject for a commission *de lunatico*, and should forthwith be furnished with a straight jacket, at the public expense." To these, if you please, may be added one of Colt's largest-sized revolvers—but about this I would not care. To make the equipment absolutely perfect, however, if late Grouse-shooting or Wild-fowl-shooting were intended, a heavy double gun, such as I have recommended for inland Duck-shooting, will be found effective.

For Eastern or English sportsmen, wishing to make their way to the region of Elk, Buffalo, and Grizzly Bear, I consider the best course to be this; to take the lake steamboat to any of the towns of Wisconsin, on Lake Michigan, and thence strike westward for Mendota and the mouth of the St. Peters, where, from the gentleman so often named, he will obtain every information and assistance he can need. All his arms, saddles, and bridles, as well as good powder, should be carried with him; as well as a high-bred hunting-horse, and dogs, if he decide on carrying them with him; horses, mules, waggons, and all stores for his expedition, he will readily obtain at his point of departure; and, if he is well found and well mounted, he will find no

difficulty in disposing of his stud and superfluous traps, barring accidents, on the spot, previous to his return. As a general rule, the less baggage he can carry with him, the better he will get on; for, in the West, baggage will be found literally, what the old Romans used to term it, *impedimenta*. Salt, coffee, flour, and sugar—or, better than flour, sea-bread—are the main things he will require in addition to blankets, a camp-kettle, a tin cup or two, and ammunition.

There is no more delightful way that I can imagine of passing a few months, for a young man of leisure, than such a trip into the wilderness; and if he time his movements, so as to be at the Great Falls of St. Anthony, or thereabout, early in the month of October, and can obtain permission to accompany Mr. Sibley's party on the hunting excursions which he makes annually, he will have, in all probability, enough sport and excitement, consisting of Deer, Elk, Bison, perhaps a little Antelope, a variation or two of Grizzly Bear—which I should earnestly advise him to let alone—and Cougar, spiced, it may possibly be, with a dash of Sacs and Foxes, and rendered thrilling by a trifle of scalp-taking, or losing, as it may be—to satisfy him for one year at least, and to add ten to his mortal existence, by the health and hardihood he will acquire, through the roughing and the gallant exercise.

ANTELOPE HUNTING.

To be honest with you, gentle and dear reader, this, as yet, can scarcely be called a sport, and it is even doubtful whether it ever will be so; for so wild, so wary, and so ineffably fleet of foot is this beautiful little creature, that the speed of hounds and horses, the skill, the science, and the arms of man, are alike almost vain against it.

Hitherto it has been pursued by none but the wild Indian warrior, and the scarcely less wild hunter or trapper of the prairies. Few are the civilized men who have chased it—a few amateurs, who have braved the long marches and precarious supplies, the perils and the terrors of the wilderness, with the officers of the gallant little frontier garrisons, the few scientific explorers of those far solitudes, and the yet fewer spirited and well-nurtured adventurers, whom the promotion of their fortunes, coupled to something perchance of a truant disposition, has led overland to trade in the Spanish countries, or to explore the mineral regions—these are the only persons who have hitherto in America pursued the Prong-horn Antelope.

Its speed is recounted to be such that, even when taken at advantage, so as to admit of being pursued by relays of horses, a fresh one started as fast as the last fell weary, it has been very rarely run down in the field.

It is usually stalked by the white hunter, as the Elk or Deer; but its wary or timorous nature, its habits of feeding on the tops of the prairie swells, with posted sentinels ever watchful, its great quickness of sight, of

scent, and of hearing, render it perhaps the most difficult to deal with of all the four-footed game of America, if we except only that which I shall next mention, the Rocky Mountain Goat, who owes his impregnability principally, if not entirely, to the inaccessible nature of the haunts which he frequents.

I do not suppose that the use of the Greyhound has ever been attempted against this beautiful little animal, and indeed there is a difficulty in applying the faculties of this the fleetest of dogs, to the pursuit of this swiftest of American quadrupeds—in truth, a two-fold difficulty, arising in the first instance from the fact, that it is scarce possible to slip the hounds within any reasonable distance of the quarry; and in the second, that the true and speediest Greyhound, running by view alone, unaided by scent, would soon be thrown out, from losing sight of its prey, as it would disappear beyond the ridgy swells of the rolling prairies, which it most loves to frequent.

Falconry has never, I believe, been even attempted in America, and so great is the expense, the trouble, and the uncertainty of training Hawks, owing to the necessity of importing skilful Falconers from the continent of Europe, or from the East, where this princely sport is still cultivated, of maintaining a large train of attendants, with kennels and stables proportionate, that it is not wonderful it should not have yet become a sport in the United States.

Expensive as it is, however, it is scarcely more so than the TURF, of which we have so many ardent votaries, and were there opportunity in the older and wealthier portion of the country for its adoption, I doubt not this most kingly of sports would have long ago had its ardent amateurs. In Europe it has been extinguished by the density of population, and perfectness of cultivation in all the level and rich districts, which alone are suited to it by nature. In the Eastern, Midland, and Southern States, the land is either too rugged or too woodland, without taking the enclosures,

which are an insurmountable obstacle, into account, to admit of the pursuit of the Falcon through the upper air by the mounted Falconer on the earth beneath.

The prairies of the West are, however, of all regions on the whole face of the globe, that most adapted to the sport; which, had it been known in the days of Tristram and Launcelot de Lac, would have been termed "the mystery of prairies," rather than "the mystery of rivers."

Many of the best varieties of Falcon, and those most suitable for training, are natives of America; and I doubt not that some of the varieties so peculiar to this country would be found as fleet on the wing, as daring in the grapple, and as obedient to the call, as the best European species—and I say this not without some foundation, having observed narrowly their flight and stoop. The three most famous Hawks for the "mews" of old, and to the present day, are the Ger Falcon, *Falco Islandicus;* the Peregrine Falcon, *Falco Peregrinus;* and the Gosshawk Hawk, *Astur Palumbarius;* all these are found on this continent—the first breeding in Labrador, and the other two generally, though rarely, through the States.

I have no doubt in my own mind that the powers of the Cooper's Hawk, *Astur Cooperii,* and the Sharp-shinned Hawk, *Astur fuscus,* peculiar and indigenous natives of the United States in general, are equal if not superior to those of any Falcon that ever flew at fur or feather.

That any of these gallant birds *might* be trained here is certain; whether they ever will be, depends, I fancy, on the solution of this question, whether great wealth, accompanied with indolent, or, at least, unoccupied leisure, and highly refined civilization, be extended into our remotest Western districts previous to the extinction of game therein or no. That question as yet is not to be solved.

At present there is probably less love of sporting, for sporting's sake, in the West than in any other region

of the States, owing to the great abundance of game, and to the habit of regarding what is elsewhere looked on as a rare beast or bird of chase, as an ordinary and every-day animal, and a not dear or delicate article of food. In very many regions, if I am not much misinformed, salt pork and tough poultry are infinitely preferred to Venison, Grouse, or Wild-fowl, unless in the large and opulent cities.

Hawks can be, and in the East—India and Persia especially—*are* trained to pursue and take the Antelope. It is said, and I can easily conceive it to be, the finest sport in existence. The fleetest of quarry a-foot, the noblest of animals, the thorough-bred horse, the fleetest of dogs, and the bravest of birds in pursuit—the rush of the horse over the boundless green sward, the swoop of the Falcon through the illimitable air—what excitement could exceed that?

If I could imagine it possible, I would ask no better sport, than a thorough-bred horse, a brace of Greyhounds, and a cast of Hawks, would afford, at dawn of an autumn day, on the farthest wilds of the West, with the Antelope, the Grouse, and the Whooping Crane for my quarry.

Whether such sport will be seen ever on this side of the Atlantic, time alone can tell—elsewhere it will not through the broad universe; if what I dream of occur ever, ere age have chilled my blood, and dimmed my eye, and unnerved my bridle hand, I will see it, and perchance may shout the death-halloo of a Prong-horn Antelope.

If not, reader, mine, I advise thee not much to try him. I doubt not thou wilt not take him, and if thou do, I doubt yet more whether he himself, or the fun, repay the toil of taking him.

BEAR HUNTING.

FROM the farthest North to the extreme South of the United States, the common black Bear of America—*Ursus Americanus*—has his regular ranges and his winter dens, and everywhere he is an object of keen and eager pursuit, not only on account of his mischievous propensities and the damage he does to the farmer, but for the value of his skin, and the excellence of his flesh, which resembling pork, with a peculiarly wild and perfumed flavour, is esteemed a great delicacy by the epicures of large cities.

To the Eastward, in Maine, and the northern parts of the other New England States, he is still abundant; in New York, a few are yet to be found among the wilder hills of Greene and Ulster counties—in Rockland and Orange they are probably extinct—and thence to the Westward through all the southern tier of counties along the Pennsylvania line, and in the northern part of that fine sporting state to the great Apalachian chain, on which and everywhere to the north of it they are extremely plentiful, as well as throughout all the wooded portions of the Southern, South-western, and Western States, even to the Pacific Ocean. There is a variety of this animal—not a distinct species—known in Carolina as the Yellow Bear, and another, peculiar to the far North, under the name of the Cinnamon Bear, a nomenclature obviously derived from the colour of their pelage.

This Bear is principally granivorous and graminivorous, doing great mischief to the maize-fields, of which grain he is extremely fond, and, like the Common Bear

of Europe, he is a great bee-hunter, and voracious amateur of honey. He does not, however, refuse a change of diet, when it offers in the shape of animal food, such as young calves, lambs, and even sheep full-grown. Moreover, when he has once addicted himself to this sanguineous diet, he rarely returns to his more innocent vegetable regimen, and becomes a very pest to the frontier farmer.

To man, unless pursued and wounded, he is perfectly innocuous, and will, on occasions, if permitted, betake himself to his heels, which carry him off at a far more rapid rate than his singularly waddling and awkward gait would lead you to imagine possible. Even when badly hurt, he is not dangerous, and though he may charge and make a savage snap at you *en passant*, he is easily avoided, and rarely if ever returns to the charge voluntarily. At close quarters he is of course an ugly customer, parrying all blows aimed at him with a blunt weapon, or even with an axe, the handle of which he will dash aside, without allowing the head to strike him, with the dexterity of a prize-fighter.

A tomahawk is therefore, unless used as a missile, an instrument of no avail against him, while, with a good stout bowie-knife of two or three pounds' weight, the Western hunters have no hesitation whatever in going in hand to hand with the brute when at bay, in order to preserve their hounds from his fatal claws, and yet more fatal hug; nor is it once in a hundred times that their temerity is punished by a wound.

The exception to this innocuous character of the American Black Bear, is the female with young cubs. She has been known pertinaciously to attack intruders upon the privacy of her young bearlings, and even to climb trees in pursuit of the offender, to the utmost height the strength of the branches will admit, and then, unable to rise higher, to maul and mangle the dependent limbs of the fugitive in her impotent ferocity. Such incidents are, however, uncommon, and rarely take place with grown-up men; though children and young

lads are not unfrequently thus annoyed in the back settlements.

In the Northern and Midland States, it cannot be said that the Bear is anywhere scientifically hunted. If the haunt of one is discovered in the vicinity of any town or village, a levy *en masse* takes place, weapons of all kinds are prepared and polished up, and all the dogs of high and low degree are forthwith pressed into the service; then, after a hurly-burly sort of skirmish of perhaps two or three days' duration, Bruin is fairly worried to death, and after being shot at by platoons enough to decimate an army, he is borne in triumph into the village, and his hide displayed as a trophy by the rustic cockneys, who have accomplished his "taking-off."

Otherwise the woodsmen, and the few who hunt by profession, as it were, and for a livelihood, either stumbling on him by accident while in pursuit of other game, or falling on his tracks, and hunting him out with one or two old steady hounds, shoot him at a single shot as a matter of business. Occasionally when they have found his watering-places, such men lie in wait for him in the afternoon, and shoot him from ambush to leeward of his path. Still, I may say, that eastward of Louisiana, Mississippi, and Arkansas, there is no such thing as Bear-hunting proper, as a regular sport. Many are killed, it is true, to the north-eastward, in New Brunswick and the Canadas, many in Hamilton County, Chatauque, and Cataraugus in New York, and yet more in Northern and Western Pennsylvania; but in all these places the mode of killing them is casual, rather than systematic, and for profit rather than for sport.

In all the northern regions, the Bear lies up regularly in some den among the crags during the winter season, and remains in a state of almost total torpidity, which is properly termed hibernation, takes neither food or water until the return of spring. It has been vulgarly believed that, during this period, the animal subsists

itself by suction of its own paws. This absurd and fabulous tale has been completely exploded by the researches of Captain Lloyd, the celebrated English Bear-hunter, who for many years passed every winter in Norway, in pursuit of his favourite game, which is there hunted on snow-shoes, and who has published two very elaborate and agreeable volumes on the habits of the animal, and the methods of killing him in Scandinavia. By his researches, it has been found that during this hibernation of the Bear, his intestines are absolutely sealed up by a species of resinous fatty matter, and that no secretions, either by the pores or the bowels, passing from the animal during this singular lethargy, he is supported by his internal fat. The Bear is in the best condition when he is on the point of lying up for the winter: in the worst, when he issues forth in spring, lean, lank, and hungry, after his four or five months' fast. This habit has led to a mode of taking him in these regions, perilous apparently, and exciting in the extreme, which is nevertheless not unfrequently resorted to when a den is discovered, and which, strange as it may seem, is almost invariably successful. Indeed, I never heard of an accident taking place of a fatal nature in one of these desperate adventures.

Several years since I wrote for the "American Turf Register," a sketch of an occurrence of this kind, which occurred on a favourite sporting-ground of my own, the scene of which is perfectly familiar to me, and for the facts of which I can vouch, although I did not see the feat performed—that having occurred previous to my visiting this country, and indeed the principal actor being at that time dead. The brother, however, who is mentioned in the tale, still I am happy to say, survives, and from him I heard, what, as it has never been republished, I shall proceed to quote, the incidents of the death of

THE LAST BEAR ON THE HILLS OF WARWICK.

It was a hot and breathless afternoon, toward the last days of July—one of those days of fiery, scorching heat, that drive the care-worn citizens from their great red-hot oven, into those calm and peaceful shades of the sweet unsophisticated country, which, to them, savour far more of purgatory than they do of paradise,—"for quiet, to quick bosoms, is a hell,"—and theirs are quick enough, heaven knows, in Wall-street. It was a hot and breathless afternoon —the sun, which had been scourging the faint earth all day long with a degree of heat endurable by those alone who can laugh at 100° of Fahrenheit, was stooping toward the western verge of heaven; but no drop of diamond dew had as yet fallen to refresh the innocent flowers, that hung their heads like maidens smitten by passionate and ill-requited love; no indication of the evening breeze had sent its welcome whisper among the motionless and silent tree-tops. Such was the season and the hour when, having started, long before Dan Phœbus had arisen from his bed, to beat the mountain swales about the greenwood lake; and having bagged, by dint of infinite exertion and vast *sudor*, present alike to dogs and men, our thirty couple of good summer Woodcock, Archer and I paused on the bold scalp of Round Mountain.

Crossing a little ridge, we came suddenly on the loveliest and most fairy-looking *ghyll*—for I must have recourse to a north-country word to denote that which lacks a name in any other dialect of the Anglo-Norman tongue—I ever looked upon. Not, at most, above twenty yards wide at the brink, nor above twelve in depth, it was clothed with a dense rich growth of hazel, birch, and juniper; the small rill brawling and sparkling in a thousand mimic cataracts over the tiny limestone ledges which opposed its progress—a beautiful profusion of wild flowers—the tall and vivid spikes of the bright scarlet habenaria—the gorgeous yellow cups of the low-growing enothera—and many gaily-coloured creepers decked the green marges of the water, or

curled, in clustering beauty, over the neighbouring coppice. We followed for a few paces this fantastic cleft, until it widened into a circular recess or cove—the summit-level of its waters—whence it dashed headlong, some twenty-five or thirty feet, into the chasm below. The floor of this small basin was paved with the bare rock, through the very midst of which the little stream had worn a channel scarcely a foot in depth, its clear cold waters glancing like crystal over its pebbly bed. On three sides it was hemmed in by steep banks, so densely set with the evergreen junipers, interlaced and matted with cat-briers and other creeping plants, that a small dog could not, without a struggle, have forced its way through the close thicket. On the fourth side, fronting the opening of the rift by which the waters found their egress, there stood a tall, flat face of granite rock, completely blocking up the glen, perfectly smooth and slippery, until it reached the height of forty feet, when it became uneven, and broke into many craggy steps and seams, from one of which shot out the broad stem and gnarled branches of an aged oak, overshadowing, with its grateful umbrage, the sequestered source of that wild mountain spring. The small cascade, gushing from an aperture midway the height of the tall cliff, leaped, in a single glittering thread, scarcely a foot broad, and but an inch or two in volume, into the little pool which it had worn out for its own reception in the hard stone at the bottom. Immediately behind this natural fountain, which, in its free leap, formed an arch of several feet in diameter, might be seen a small and craggy aperture, but little larger than the entrance of a common well, situate close to the rock's base, descending in a direction nearly perpendicular, for several feet, as might be easily discovered from without.

"There, Frank," cried Harry, as he pointed to the cave,—"*there* is the scene of my Bear story, and *here*, as I told you, is the sweetest nook, and freshest spring, you ever saw or tasted!"

"For the sight," replied I, "I confess. As to the taste, I will speak more presently." While I replied, I was engaged in producing from my pocket our slight stores of pilot biscuit, salt, and hard-boiled eggs, whereunto Harry contributed his quota in the shape of a small piece of cold salt pork, and—tell it not in Gath—two or three young, green-topped, summer onions. Two modest-sized dram bottles, duly supplied with old Farintosh, and a dozen or two of right Manilla cheroots, arranged in tempting order, beside the brimming basin of the nymph-like cascade, completed our arrangement; and, after having laved our heated brows and hands, begrimmed with gunpowder, and stained with the red witness of volucrine slaughter, stretched on the cool granite floor, and sheltered from the fierce rays of the summer sun by the dark foliage of the oak—we feasted, happier and more content with our frugal fare, than the most lordly epicure that ever strove to stimulate his appetite to the appreciation of fresh luxuries.

"Well, Harry," exclaimed I, when I was satiate with food, and while, having already quaffed two moderate horns, I was engaged in emptying, alas! the last remaining drops of whisky into the silver cup, sparkling with pure cold water—"Well, Harry, the spring *is* fresh, and cold, and tasteless, as any water I ever *did* taste! Pity it were not situate in some Faun-haunted glen of green Arcadia, or some sweet flower-enamelled dell of merry England, that it might have a meeter legend for romantic ears than your Bear story—some minstrel dream of Dryad, or Oread, or of Dian's train, mortal-wooed!—some frolic tale of Oberon and his blithe Titania!—or, stranger yet, some thrilling and disastrous lay, after the German school, of woman wailing for her demon lover! But, sith it may not be, let's have the Bear."

"Well, then," replied that worthy, "first, as you must know, the hero of my tale is—alas! that I must say *was*, rather—a brother of Tom Draw, than whom no braver nor more honest man, no warmer friend, no

keener sportsman, ever departed to his long last home, dewed by the tears of all who knew him. He *was*—but it boots not to weave long reminiscences—you know the brother who still survives; and, knowing him, you have the veritable picture of the defunct, as regards soul, I mean, and spirit—for he was not a mountain in the flesh, but a man only—and a stout and good one—as, even more than my assertion, my now forthcoming tale will testify. It was the very first winter I had passed in the United States, that I was staying up here, for the first time likewise. I had, of course, become speedily intimate with Tom, with whom, indeed, it needs no longer space so to become; and scarcely less familiar with his brother, who, at that time, held a farm in the valley just below our feet. I had been resident at Tom's above six weeks; and, during that spell, as he would call it, we had achieved much highly pleasant and exciting slaughter of Quail, Woodcock, and Partridge; not overlooking sundry Foxes, red, black, and gray, and four or five right Stags of ten, whose blood had dyed the limpid waters of the Greenwood Lake. It was late in the autumn; the leaves had fallen; and lo! one morning we awoke and found the earth carpeted far and near with smooth white snow. Enough had fallen in the night to cover the whole surface of the fields, hill, vale, and cultivated level, with one wide vest of virgin purity —but that was all! for it had cleared off early in the morning, and frozen somewhat crisply; and then a brisk breeze rising, had swept it from the trees, before the sun had gained sufficient power to thaw the burthen of the loaded branches.

"Tom and I, therefore, set forth, after breakfast, with dog and gun, to beat up a large bevy of Quail which we had found on the preceding evening, when it was quite too late to profit by the find, in a great buckwheat stubble, a quarter of a mile hence on the southern slope. After a merry tramp, we flushed them in a hedgerow, drove them up into this swale, and used them up considerable, as Tom said. The last three birds pitched

into that bank just above you; and, as we followed them, we came across what Tom pronounced, upon the instant, to be the fresh track of a Bear. Leaving the meaner game, we set ourselves to work immediately to trail old Bruin to his lair, if possible;—the rather that, from the loss of a toe, Tom confidently, and with many oaths, asserted that this was no other than 'the damndest etarnal biggest Bar that ever had been knowed in Warwick,'—one that had been acquainted with the sheep and calves of all the farmers round, for many a year of riot and impunity. In less than ten minutes we had traced him to this cave, whereunto the track led visibly, and whence no track returned. The moment we had housed him, Tom left me with directions to sit down close to the den's mouth, and there to smoke my cigar, and talk to myself aloud, until his return from reconnoitring the *locale*, and learning whether our friend had any second exit to his snug *hiemalia*. 'You needn't be scar't now, I tell you, Archer,' he concluded; 'for he's a deal too 'cute to come out, or even show his nose, while he smells 'bacca and hears woices. I'll be back to-rights!'

"After some twenty-five or thirty minutes, back he came, blown and tired, but in extraordinary glee!

"There's no help for it, Archer; he's got to smell hell anyways!—there's not a hole in the hull hill side, but this!'

"'But can we bolt him?' inquired I, somewhat dubiously.

"'Sartain!' replied he, scornfully,—'sartain; what is there now to hinder us? I'll bide here quietly, while you cuts down into the village, and brings all hands as you can raise—and bid them bring lots of blankets, and an axe or two, and all there is in the house to eat and drink, both; and a heap of straw. Now don't be stoppin' to ask me no questions—shin it, I say, and jest call in and tell my brother what we've done, and start him up here right away—leave me your gun, and all o' them cigars. Now, strick it.'

"Well, away I went, and, in less than an hour, we had a dozen able-bodied men, with axes, arms, provisions—edible and potable—enough for a week's consumption, on the ground, where we found Tom and his brother, both keeping good watch and ward. The first step was to prepare a shanty, as it was evident there was small chance of bolting him ere nightfall. This was soon done, and our party was immediately divided into gangs, so that we might be on the alert both day and night. A mighty fire was next kindled over the cavern's mouth—the rill having been turned aside—in hopes that we might smoke him out. After this method had been tried all that day, and all night, it was found wholly useless—the cavern having many rifts and rents, as we could see by the fumes which arose from the earth at several points, whereby the smoke escaped without becoming dense enough to force our friend to bolt. We then tried dogs: four of the best the country could produce were sent in, and a most demoniacal affray and hubbub followed within the bowels of the earthfast rock; but, in a little while, three of our canine friends were glad enough to make their exit, mangled, and maimed, and bleeding; more fortunate than their companion, whose greater pluck had only earned for him a harder and more mournful fate. We sent for fire-works; and kept up, for some three hours, such a din, and such a stench, as might have scared the devil from his lair; but Bruin bore it all with truly stoical endurance. Miners were summoned next; and we essayed to blast the granite, but it was all in vain, the hardness of the stone defied our labours. Three days had passed away, and we were now no nearer than at first—every means had been tried, and every means found futile. Blank disappointment sat on every face, when Michael Draw, Tom's brother, not merely volunteered, but could not be by any means deterred from going down into the den, and shooting the brute in its very hold. Dissuasion and remonstrance were in vain—he was bent on it—and, at length Tom, who had been the most resolved

in opposition, exclaimed, 'If he will go, let him!' so that decided the whole matter.

"The cave, it seemed, had been explored already, and its localities were known to several of the party, but more particularly to the bold volunteer who had insisted on this perilous enterprize. The well-like aperture, which could alone be seen from without, descended, widening gradually as it got farther from the surface, for somewhat more than eight feet. At that depth the fissure turned off at right angles, running nearly horizontally, an arch of about three feet in height, and some two yards in length, into a small and circular chamber, beyond which there was no passage whether for man or beast, and in which it was certain that the well-known and much-detested Bear had taken up his winter-quarters. The plan, then, on which Michael had resolved, was to descend into this cavity, with a rope securely fastened under his arm-pits, provided with a sufficient quantity of lights, and his good musket —to worm himself feet forward, on his back, along the horizontal tunnel, and to shoot at the eyes of the fierce monster, which would be clearly visible in the dark den by the reflection of the torches; trusting to the alertness of his comrades from without, who were instructed instantly on hearing the report of his musket-shot to haul him out hand over hand. This mode decided on, it needed no long space to put it into execution. Two narrow laths of pine-wood were procured, and half a dozen auger holes drilled into each—as many candles were inserted into these temporary candelabra, and duly lighted. The rope was next made fast about his chest, his musket carefully loaded with two good ounce-bullets well wadded in greased buckskin, his butcher-knife disposed in readiness to meet his grasp, and in he went, without one shade of fear or doubt on his bold, sunburnt visage. As he descended, I confess that my heart fairly sank, and a faint sickness came across me, when I thought of the dread risk he ran in courting the encounter of so fell a foe, wounded and furious in that

small narrow hole, where valour nor activity, nor the high heart of manhood, could be expected to avail anything against the close hug of the shaggy monster.

"Tom's ruddy face grew pale, and his huge body quivered with emotion, as, bidding him 'God speed,' he griped his brother's fist, gave him the trusty piece which his own hand had loaded, and saw him gradually disappear, thrusting the lights before him with his feet, and holding the long queen's arm cocked and ready in a hand that trembled not—the *only* hand that trembled not of all our party! Inch by inch his stout frame vanished into the narrow fissure; and now his head disappeared, and still he drew the yielding rope along! Now he has stopped, there is no strain upon the cord! —there is a pause!—a long and fearful pause! The men without stood by to haul, their arms stretched forward to their full extent, their sinewy frames bent to the task, and their rough lineaments expressive of strange agitation. Tom and myself, and some half dozen others, stood on the watch with ready rifles, lest, wounded and infuriate, the brute should follow hard on the invader of its perilous lair. Hark to that dull and stifled growl! The watchers positively shivered, and their teeth chattered with excitement. There! there! that loud and bellowing roar, reverberated by the ten thousand echoes of the confined cavern, till it might have been taken for a burst of subterraneous thunder! —that wild and fearful howl—half roar of fury—half yell of mortal anguish!

"With headlong violence they hauled upon the creaking rope, and dragged with terrible impetuosity out of the fearful cavern—his head striking the granite rocks, and his limbs fairly clattering against the rude projections, yet still, with gallant hardihood, retaining his good weapon—the sturdy woodman was whirled out into the open air unwounded; while the fierce brute within rushed after him to the very cavern's mouth, raving and roaring till the solid mountain seemed to shake and quiver.

"As soon as he had entered the small chamber, he had perceived the glaring eyeballs of the monster; had taken his aim steadily between them, by the strong light of the flaring candles; and, as he said, had lodged his bullets fairly—a statement which was verified by the long-drawn and painful moanings of the beast within. After a while, these dread sounds died away, and all was still as death. Then once again, undaunted by his previous peril, the bold man—though, as he averred, he felt the hot breath of the monster on his face, so nearly had it followed him in his precipitate retreat—prepared to beard the savage in his hold. Again he vanished from our sight!—again his musket-shot roared like the voice of a volcano from the vitals of the rock!—again, at mighty peril to his bones, he was dragged into daylight!—but this time, maddened with wrath and agony, yelling with rage and pain, streaming with gore, and white with foam, which flew on every side, churned from its gnashing tusks, the Bear rushed after him. One mighty bound brought it clear out of the deep chasm—the bruised trunk of the daring hunter, and the confused group of men who had been stationed at the rope, and who were now, between anxiety and terror, floundering to and fro, hindering one another—lay within three or, at most, four paces of the frantic monster; while, to increase the peril, a wild and ill-directed volley, fired in haste and fear, was poured in by the watchers, the bullets whistling on every side, but with far greater peril to our friends than to the object of their aim. Tom drew his gun up coolly—pulled—but no spark replied to the unlucky flint. With a loud curse he dashed the useless musket to the ground, unsheathed his butcher-knife, and rushed on to attack the wild beast, single-handed. At the same point of time, I saw my sight, as I fetched up my rifle, in clear relief against the dark fur of the head, close to the root of the left ear!—my finger was upon the trigger, when, mortally wounded long before, exhausted by his dying effort, the huge brute pitched headlong, without wait-

ing for my shot, and, within ten feet of his destined victims, 'in one wild roar expired.' He had received all four of Michael's bullets!—the first shot had planted one ball in his lower jaw, which it had shattered fearfully, and another in his neck!—the second had driven one through the right eye into the very brain, and cut a long deep furrow on the crown with the other! Six hundred and odd pounds did he weigh! He was the largest and the last! None of his shaggy brethren have visited, since his decease, the woods of Warwick! nor shall I ever more, I trust, witness so dread a peril so needlessly encountered."

The above is no fancy sketch, but is true to the letter, with the sole exception, that the narrator was not present, as has been stated above; and that the names of the real actors in the scene have been slightly, very slightly, altered: and with this I shall conclude my narrative of Northern Bear-hunting.

In the South and the South-west, on the contrary, Bear-hunting is a favourite and systematically followed sport.

Many gentlemen in Louisiana and Mississippi keep regular packs of Bear-hounds, and go to great expense and trouble in training, managing and hunting them together; and, as to dogs, if not to men, this sport abounds with bloody catastrophes—the cost from wear and tear, and necessary expenditure of life, is very large. All kinds of hounds have been tried, with but one or two exceptions, and none have been found perfectly to answer, for the dash and courage of the genuine and thorough-bred races lead them to rush in upon the brute at bay; and it would seem, by all accounts, that scarcely any number of the bravest hounds can pull down this savage, even after the rifle has done bloody execution on him.

One gentleman of Louisiana, a passionate amateur of this sport, resolved on attempting the use of Blood-hounds, thinking thereby to force him at once to bay;

and, with much pains, collected nine of these noble animals, and set forth in full confidence of success. The consequence was, that, being brought to bay in an impenetrable cane-brake, where none of the hunters could get up to finish him with shot or stab, the Blood-hounds fell on like fiends, and in less than no time the Bear "killed or crippled seven out of the nine, breaking the shoulders or backs of some, and tearing out the bowels of others—serving some with his teeth, and clipping others with his claws."

Mr. Thorpe, too, who has contributed two fine papers on this subject to Porter's "Hawker," speaks of thirty-five staunch dogs bringing a Bear to bay, and being entirely mauled and defeated, until the hunters finished the job with the rifle.

The Bull-dog is the worst of all dogs, from his want of scent and speed, and his indomitable ferocity, which leads him at once to rush to close quarters, when he gets his quietus in an instant.

What would be the consequence, were a full pack of the great Pomeranian Boar-hounds, such as we see depicted in Snyder's hunting-pieces, set upon him simultaneously, I cannot say; but, for my own part, I can scarcely conceive the possibility of any animal on earth, unless the bulk of the Bison, Elephant, or Rhinoceros, standing the combined attack of five-and-twenty couple of these monstrous hounds, or even of a full pack of English Fox or Stag-hounds.

The great desideratum, however, in Bear-hunting, is a dog to tease the Bear, by biting his heels, when he flies, and then to worry and snap at him when he turns to bay, avoiding lunges and passes when he strikes or charges, and falling on again the instant he turns again to fly. To this end, doubtless, the Scotch Terrier, or even the half-Scotch half-Bull Terrier, would prove an excellent coadjutor; but, although this gallant little dog has powers of scenting equal almost to anything, and very considerable speed, with immense endurance—as every one knows who has ridden to a pack of English

Foxhounds, and seen the little Terriers never lagging above half a field behind the pack, even when running on a breast-high scent, and invariably up at the shortest check—I should doubt their having tongue enough to give note to the hunters of the course of the quarry through the tangled and pathless cane-brakes. It is by the music of the pack alone that the riders or runners are guided, as the hounds are rarely or never in view until the brute is brought to bay, and he is often bayed many times before they can get a shot at him.

I do not see, however, why a cry of Terriers, with two or three of the old, deep-tongued Southern Hounds in company, which would follow on the traces of the fleeter little ones, and make the whole forests resound with their deep-tongued harmony, might not answer all purposes and meet all contingencies.

Still it is desirable to have a dog or two, along with the rest, who does not lack courage enough to charge home on occasion, as on their doing so, in case of a rifle missing fire at close quarters, or a knife-blow being parried, it may be that the life of the hunter may depend.

The dog now most in use, and considered the best combination for all contingencies, is a treble cross of the Hound, the Bull-dog, and the ordinary yellow, sharp-nosed cur Watch-dog. This is the Bear-hound proper of Arkansas and Louisiana.

In the former of these countries, this sport is chiefly pursued on foot; in the latter, especially in the great Mississippi swamp, on horseback; for a genuine and highly graphic account of which see Porter's "Hawker," pp. 300, 339.

In the former, the long, ponderous, clumsy rifle, with the small ball, is the most commonly used weapon. In the latter, both for the convenience of carrying it on horseback, and from a conviction of its greater deadliness, the short, large-bored yager, or the heavy double-shot gun, with buck-shot or cartridge.

In the former State, Bear-hunting is pursued both for sport and profit by the rough hardy woodsmen,

who form the greater portion of its rural population; in the latter, by the wealthy and cultivated planters, who dwell on their own fine estates, and resort to this wild and sometimes dangerous pursuit, merely as a frolic.

In both States, the same rules of hunting are observed,—the hunters camp out for the night, in whatever suitable position they can find, near to the haunts of the Bear. These haunts are easily known by the habit of this animal during the summer months, from July to September, of tearing the bark of the trees in the vicinity of his favourite resorts, with tooth and claw, as high up as he can reach, in the same manner as the Stag frays them with his antlers, or the Bull and Bison toss the earth with hoof and horn, in their corresponding seasons.

By a careful observation of these marks, old and experienced hunters will speedily tell you how many Bears are to be found in any given neighbourhood, and will pronounce, with what approximates wondrously to certainty, on the size, sex, and weight of each individual. In Louisiana, the Bears do not hibernate; but the female, during the first month or two after producing cubs, which she does ordinarily but once in two years, and then two or three at a birth, conceals herself with the cubs in the hollow of a decayed tree, until they are able to follow her, leaving her den neither for food nor for water, but subsisting, as before described, on her own internal fat and juices—which is the more astonishing, when we consider that, during this period, she self-supported, supports also, from the same internal storehouse, her voracious family.

The Bears make their beds in the thickest cane-brakes in the vicinity of their watering-places, to which they have their regular paths, which they never change, so long as they bed in the same place, and in which they travel to and fro, invariably setting their feet down in the old tracks.

By observation of these facts, it is easy for a skilful

guide to conduct a party to a ground selected over night, on which they shall be nearly certain of finding great sport on the morrow.

The camping is performed much as the same operation has been described with regard to Moose and Cariboo-hunting, on page 259, except that here it is usual to build temporary shanties of the wild cane, and thatch them with palmetto leaves, as a defence against the heavy dews and occasional showers.

As soon as the brief but savory hunters' breakfast is concluded, horses are saddled, weapons loaded, and the hounds called together, the party proceed silently and calmly to the place selected for the throwing off; and on reaching it, two or three of the oldest and most experienced hunters dismount, and entering the cane-brake with the hounds, crawling through the dense thicket, now half erect, now stooping, now on their hands and knees, lay them upon the trail of the animal, and endeavour to drive him out to their comrades in the open forest without.

Some of these, as soon as the hounds were thrown into the brake, have hurried forward and taken up their stations along the margin of the thickest covert, at distant intervals one from the other wherever, from the discovery of a path, or crossing place, as it is termed, or from any indications, they think it likely the Bear may show himself; others continue in the saddle on either hand of the brake, until the burst and crash of tongues proclaim that the Bear is afoot, when they gallop forward helter-skelter, endeavouring to get a-head of the hunt, when they rush into the covert, and if they can head the quarry, often succeed in killing him before he is brought to bay. If they fail in this, or if the shot do not prove fatal, forward again is the word, until the prolonged clamour of the pack now confined to a single spot, and stationary, announces that the savage is at bay. Thereon ensues a headlong and determined rush into the thicket, in desperate but friendly rivalry of the hunters striving who shall obtain the

honour of the first blood, and the death. If the first shot be a miss, or inflict only a superficial wound, the dogs, which have been baying him in a wary semicircle, the boldest now dashing in and giving him a nip, and instantly, if so fortunate to escape his hug or fatal blow, retreating to a secure distance, break in upon him with a simultaneous crash of tongues; but knocking them over right and left, he fights his way clear through and again onward, onward through the densest canes crackling like straws or stubble before his headlong impetus, with the pack again yelling at his heels, till his speed slackens, his wind fails him, he again turns to the combat, and is at length brought down by a better aimed and deadlier bullet.

The head of a Bear never should be aimed at; in the first place, because the animal, when at bay, keeps it constantly in motion, so that it offers anything but an easy mark; in the second, that it is so hard, and of a form so singularly rounded, that unless the ball strike it at right angles, on a perpendicular line, it is almost sure to glance off at a tangent, without inflicting a wound.

The best places at which to aim are, the centre of the breast if the Bear be coming directly at you; if he be facing you, erect on his hind quarters, a little to the left, and low down on the breast toward the belly; if he be crossing you, behind the shoulder, about the arch of the ribs. In any one of these places, an ounce, or even a half-ounce bullet—I should be loath to shoot at a Bear with anything smaller—will find the heart, and do the business, without giving the trouble of a second shot.

If it be necessary to take to the knife, never strike, for the Bear is sure to parry the blow, but always thrust, which, if it take effect, inflicts a far more certain and deadly wound; and in thrusting, keep the edge of your blade, which should be very keen and heavy, upward and outward, if you are facing the animal; and forward, if you are standing against his broadside. By this means his paw, in parrying, will

meet the edge of the knife, which will probably disable him. But the better way with a wounded Bear, if your dogs are in sufficient force, and of pluck enough, to occupy his attention, is to reload your rifle as quietly and deliberately as possible, and then stepping up to him, to give him the charge in a vital place deliberately.

Bears, if they are long run, and can outrun the hounds, which in dense coverts an old lean one will often do, are very apt to run in circles, and return to the lair from which they were first started: the drivers, therefore, when the game is afoot and the hounds have gone away on a hot scent, can hardly do better than take post on the paths by which he is likely to return, and await his coming patiently.

In crossing bayous, or streams, these sagacious brutes will always take advantage of a log or tree which may have fallen across it, if there be one in the vicinity of their course, and for it they will frequently shape their path, so that it is a common and by no means unwise manœuvre, when the cry of the hounds betokens that the quarry is heading for a known stream, to dash forward and take post at any crossing log of which the hunter may be aware, remembering always the old rule *to keep well to leeward.* As a general rule, no wild animal, not even *wild fowl,* can be approached certainly down-wind, although I believe it is the ears and not the noses of the latter, to which our presence is obnoxious.

There is another noble animal peculiar to these regions, fiercer and more dangerous than any, but he is rare, and of his habits and whereabouts little is known —I mean the WILD BULL. I do not mean the Bison, nor a Domestic Bull which may have broken bounds and taken to the forest accidentally, but the descendant of the cattle turned out by the earliest Spanish settlers, to increase and multiply in the wilderness, the progeny perhaps of the far-famed Bulls of Andalusia, which were the pride and terror of the plazas di toro, at Granada, or Madrid, for the delight of the Moorish kings, or

prouder Spanish nobles. Of these tremendous animals, I know nothing except an anecdote of the late General Floyd, who it is said used to encounter them and kill them single-handed, on horseback, with the lance. Now, I believe, they are becoming scarce, and are rarely or never hunted, though of course they are dealt with summarily, if encountered while in pursuit of humbler game. The same may be said of the Wolf, the Wild-Cat, and the Cougar, or Panther; all of which are occasionally hunted with hounds, and none of which ever receive grace or law, if encountered in the woods or on the prairie, but which are not in any sort to be regarded as game, and which are never, I might almost say, hunted in form and of malice prepense,

Not so the GRIZZLY BEAR—*Ursus Horribilis*—which is to America, what the Lion is to Southern Africa, and the Tiger to Bengal, the fiercest and most terrible of all its quadrupeds; and probably in fierceness, cruelty, and wanton thirst of blood, more to be dreaded than either of the Royal Cats, which despite all that has been said of them, are but sneaking *varmints* after all, which would rather run than fight any day, unless, when very sorely pressed by famine, or pinned in a corner. The Grizzly Bear, however, has not the least idea of running, unless it be at you; in which direction he persists with so much tenacity that it is not very easy to say what will stop him—being *kilt*, as an Irishman understands the word, has no effect on him whatever, as is proved by the fact recorded by those adventurous and veracious travellers, Captains Lewis and Clarke, the first explorers of the haunts of this pleasing gentleman, who state that one individual of this race, which measured above eight feet in length and five in girth, swam half a mile, and lived half an hour, or thereabout, after being shot five times through the lungs, and receiving five other wounds, any of which, in ordinary animals, would be deemed mortal.

The GRIZZLY BEAR has been known to fight desperately after being shot through the cavity of the heart;

and the only certain death-wound that can be inflicted on him is by a bullet through the brain, which, from the peculiar form of the scull, the shape of the muscles which protect it, and the extreme hardness of the bone, it is almost impossible to send to this mark. In like manner, the thickness of his hide and the shagginess of his coat, render it all but useless to aim at his heart. It is stated that this tremendous savage is able to carry off the carcase of a horse, without being materially impeded in its speed by so vast a burthen.

One would suppose, that all these things considered, the hunter would be willing to give this sanguinary and gigantic monster the widest of all possible berths; but such is not the case. The Indians esteem the slaughter of one of these dreadful Bears as equal to a great victory over a hostile tribe, and a necklace of his claws is the noblest trophy which can be borne of heroic daring; his trail is therefore eagerly pursued, and he is brought to battle with ardour, and if slain, his slaughter is celebrated by the death-song, and death-halloo, and his slayer regarded as a great brave from that time forth.

In like manner, sometimes for the sake of gain, for his fur is rich and valuable, sometimes for the sake of a hearty meal, sometimes for the mere love of sport, the huntsman of the Western wilds gives chase to this most terrible of beasts, and even ventures single-handed into his winter den, wherein to assail him. My friend, Mr. Thorps's admirable description of the manner in which the hunter of the plains, which lie about the eastern base of the Rocky Mountains, judges of the qualities, age, &c., of this animal, and of the mode in which he demeans himself in the encounter, is so incomparably true and graphic, that I cannot refrain quoting it from Porter's Hawker, to which it was contributed by the author. I have the less hesitation in doing this, that I have entirely refrained from making use of this excellent work, when I could elsewhere find materials; and farther, that I have heard the author relate *vivâ voce* all

and more than all here recited, so that I might, if I pleased, rewrite the same matter, and so give his experience to the world in my own words; but always willing myself that any one who deems it worth the while, should quote from my poor lucubrations, I presume in this instance to take the liberty with my friends, sure that it will pass unreproved.

"The different methods to destroy the Grizzly Bear by those who hunt them, are as numerous almost as the Bears that are killed. They are not an animal that permits of a system in hunting them, and it is for this reason that they are so dangerous and difficult to destroy. The experience of one hunt may cost a limb or a life in the next one, if used as a criterion; and fatal, indeed, is the mistake, if it comes to grappling with an animal whose gigantic strength enables him to lift a horse in his huge arms, and bear it away as a prize. There is one terrible exception to this rule; one habit of the animal may be certainly calculated on, but a daring heart only can take advantage of it.

"The Grizzly Bear, like the Tiger and the Lion, have their caves in which they live, but they use them principally as a safe lodging-place, when the cold of winter renders them torpid and disposed to sleep. To these caves they retire late in the fall, and they seldom venture out until the warmth of spring. Sometimes two occupy one cave, but this is not often the case, as the unsociability of the animal is proverbial, they preferring to be solitary and alone. A knowledge of the forests, and an occasional trailing for Bear, inform the hunter of these caves, and the only habit of the Grizzly Bear that can with certainty be taken advantage of is the one of his being in his cave alive, if at the proper season. And the hunter has the terrible liberty of entering his cave single-handed and there destroying him. Of this only method of hunting the Grizzly Bear we would attempt a description.

"The thought of entering a cave inhabited by one of the most powerful beasts of prey, is one calculated to

try the strength of the best nerves; and when it is considered that the least trepidation, the slightest mistake, may cause, and probably will result to the hunter in instant death, it certainly exhibits the highest demonstration of physical courage to pursue such a method of hunting. Yet there are many persons in the forests of North America who engage in such perilous adventures with no other object in view *than the sport!* or a hearty meal. The hunter's preparations to 'beard the lion in his den,' commence with examining the mouth of the cave he is about to enter. Upon the signs there exhibited, he decides whether the Bear is alone; for if there are two the cave is never entered. The size of the Bear is also thus known, and the time since he was last in search of food. The way this knowledge is obtained, from indications so slight, or unseen to an ordinary eye, is one of the greatest mysteries of the woods. Placing ourselves at the mouth of the cave containing a Grizzly Bear, to our untutored senses there would be nothing to distinguish it from one that was empty; but if some Diana of the forest would touch our eyes, and give us the *instinct of sight* possessed by the hunter, we would argue this wise: 'From all the marks about the mouth of this cave, the occupant has not been out for a great length of time, for the grass and earth have not lately been disturbed. The Bear is in the cave, for the last tracks made are with the toe-marks towards the cave. There is but one Bear, because the tracks are regular and of the same size. He is a large Bear; the length of the step and the size of the paw indicate this; and he is a fat one, because his *hind feet do not step in the impressions made by the fore ones*, as is always the case with a lean Bear.'

"Such are the signs and arguments that present themselves to the hunter; and mysterious as they seem when not understood, when explained they strike the imagination at once, as being founded on the unerring simplicity and truthfulness of nature itself. It may be asked, how is it that the Grizzly bear is so formidable

to numbers when met in the forest, and when in a cave can be assailed successfully by a single man? In answer to this, we must recollect that the Bear is only attacked in his cave when he is in total darkness, and suffering from surprise and the torpidity of the season. These three things are in this method of hunting taken advantage of; and but for these advantages no quickness of eye, or steadiness of nerve, or forest experience, would protect for an instant the intruder to the cave of the Grizzly Bear. The hunter having satisfied himself about the cave, prepares a candle, which he makes out of the wax taken from the comb of wild bees, softened by the grease of the Bear. This candle has a large wick, and emits a brilliant flame. Nothing else is needed but the rifle; the knife and the belt are useless, for if a struggle should ensue that would make it available, the foe is too powerful to mind its thrusts before the hand using it would be dead. Bearing the candle before him, with the rifle in a convenient position, the hunter fearlessly enters the cave, he is soon surrounded by darkness, and is totally unconscious where his enemy will reveal himself. Having fixed the candle on the ground in a firm position, with an apparatus provided, he lights it, and its brilliant flame soon penetrates into the recesses of the cavern, its size of course rendering the illumination more or less complete. The hunter now places himself on his belly, having the candle between the back part of the cave, where the Bear is, and himself; in this position, with the muzzle of the rifle protruding out in front of him, he patiently waits for his victim. A short time only elapses before Bruin is aroused by the light; the noise made by his waking from sleep attracts the hunter, and he soon distinguishes the black mass, moving, stretching, and yawning, like a person awakened from a deep sleep. The hunter moves not, but prepares his rifle; the Bear, finally roused, turns his head towards the candle, and with slow and waddling steps approaches it. Now is the time that tries the nerves of the hunter; too late to retreat, his

life hangs upon his certain aim and the goodness of his powder. The slightest variation in the bullet, or a flashing pan, and he is a doomed man. So tenacious of life is the common Black Bear, that it is frequently wounded in its most vital parts, and still will escape, or give terrible battle. But the Grizzly Bear seems protected by an infinite greater tenacity of life; his skin, covered by matted hair, and the huge bones of his body, protects the heart as if encased in a wall, while the brain is buried in a skull compared to which adamant is not harder. A bullet striking the Bear's forehead would flatten if it struck squarely on the solid bone, as if fired against a rock; and dangerous indeed would it be, to take the chances of reaching the animal's heart. With these fearful odds against the hunter, the Bear approaches the candle, growing every moment more sensible of some uncommon intrusion; he reaches the blaze, and either raises his paw to strike it, or lifts his nose to scent it, either of which will extinguish it, and leave the hunter and the Bear in total darkness. This dreadful moment is taken advantage of—the loud report of the rifle fills the cave with stunning noise, and as the light disappears, the ball, if successfully fired, penetrates the eye of the huge animal, the only place where it would find a passage to the brain; and this not only gives the death-wound, but instantly paralyzes, that no temporary resistance may be made. On such chances, the American hunter perils his life, and often thoughtlessly courts the danger. T. B. T."

With this brilliant sketch, I close my observations on the Bear in particular, and on Western hunting in general. I have written on this part of my subject with less confidence and more fear of erring,—in that with Western sports I have no practical acquaintance; and that I have in consequence been obliged to depend for my facts on what I have learned from conversation or correspondence with others, or from the published works of those who have seen the animals in their

natural state, and whose opinions, founded on the notice and experience of years, are doubtless more correct than any I could have arrived at in the course of a transient tour through the regions of Elk and Bison—on the strength of the briefest of which every travelled cockney deems himself fully justified in discoursing learnedly anent all the wild sports of the West.

I mention this, in order to deprecate any severity of censure on this portion of my work, should errors occur, though I trust there are none so flagrant as to merit such. With many of the animals. in a state of domestication, I am familiar, as I am with the weapons used in their destruction: and I intimately know men who have killed all the animals I have recorded here, except, perhaps, the Antelope, the Rocky Mountain Goat, the Black-tailed Deer, and the Grizzly Bear, almost as often as I have killed Woodcock; and who are as familiar, at least, with the chase of those, as I pretend to be with the pursuit of these.

For the rest, both with regard to this and other heads of my subject, I shall be but too grateful to any kindred spirits and friends, whether known or unknown, who, whether from love of the author or of the subject, will be so kind as to forward me, either the corrections of errors, or the statements of new facts, relating to the habits, haunts, food, and, more especially, the seasons and migrations, of every sort of Game, which may be embodied in future editions of the present work.

MOUNTAIN SPORTS.

Upon the highest crags and ridges of the Rocky Mountains, where no foot of man, save that of a few bold explorers or daring trappers, has frayed the virgin snows, dwells, almost unknown, in his unapproached, secure solitudes, the Wild Goat of the Rocky Mountains; for, though he has been incorrectly styled a Sheep, such is his proper name and order.

Little is known of his haunts—of his habits, less. No very accurate description exists, so far as I can discover, even of its appearance; that given by Godman, which I have quoted above, being both bald and contradictory, inasmuch as in one line he states that "the traders do not consider its fleece of much worth;" and ten lines lower, on the same page, asserts that "it is said that the fleece of this Goat is as fine as that of the celebrated Shawl Goat of Cashmere."

Its flesh is said to be musky and unpleasant; and, although so little is known positively concerning the animal, it would not appear that there is much difficulty in its pursuit or capture, beyond the difficulties inherent to its haunts, and unavoidable by visitors to the Ultima Thule of America, the Rocky Mountains.

This much is certain, that it bears no analogy whatever to the Chamois of the Alps, or the Ibex of the Pyrenees, both of which are smooth, sleek-coated animals, nearer akin to the Deer or Antelope, than to the Goat. This creature, on the contrary, has no relation either to Deer or Antelope, and would seem to border closely on the Sheep, and to be a connecting

link between that and the true Goat. To this conclusion I am led by the loose and fleecy nature of its covering, as also by the shortness of its horns.

Had it not been for these, I should have fancied that some analogy might have existed between this Goat and that described ages ago by Homer, utterly lost sight of during all intervening time, and lately re-discovered by English travellers, as peculiar to the highlands of the Isle of Crete, or Candia, as it is termed in modern geography, in the Levantine Sea.

If it be true, that this Goat is easily killed by the hunters, it is an anomaly in natural history—for, generally speaking, in all countries, the Wild Goat of the mountain-tops is, to a proverb, the most wary and difficult to be pursued of all beasts of chase—their extraordinary agility and sureness, no less than swiftness, of foot, giving them an advantage among the rocky, and often, to the tread of man, inaccessible fastnesses, which neither the craft nor the deadly fire-arms of the civilized man can obviate or neutralize; but I am inclined to doubt the truth of the assertion.

I conceive that the Rocky Mountain Goat is rarely an object of particular systematic pursuit; and that when killed at all, it is almost by accident, during the winter season, the snows of which are said to drive it down into the valleys.

While among the herbless crags and awful precipices of those dread mountain solitudes which it inhabits, and among which it bounds fearless and sublime, where man can only creep and cling, it is out of the nature of things that it can be captured easily. It is not *easy* to see it, in the first place; and when seen, to outclimb and circumvent it, must require that the hunter should be every inch a man.

With regard to stalking these animals—of course, there is no other way of approaching them—I have but one or two remarks to make, which I have deferred to this place, rather than connect them with my general hints on this subjects; since, as they relate to this,

more particularly than other kind of game, being more necessary among hills, they are here the most suitable.

The first is, if possible, to stalk the Mountain Goat, having the sun on your back, and in his eyes; the other is to approach him again, if possible, from the upper to the lower ground; I say in both cases, if possible—for all depends on the direction of the wind, *down* which it is impossible, under any circumstances, to approach Deer or Goats.

Both these animals have the habit, so far as they can, of always keeping the upper ground; and consequently it is their nature to keep the brightest look-out for an enemy's approaches from below. They rarely, in comparison, look upward.

Wild-fowl, on the contrary, and birds of all kinds. expecting all attacks from above, are most easily approached from below, upward.

Cloudy weather, with a light, steady wind from one quarter, and occasional glimpses of sunshine, is very favourable for stalking. High and changeable winds are very bad, as they render the herds wild, and make it more difficult to approach from the *leeward*. Mist is worst of all, as animals of all kind, whether Fowl or Quadrupeds, with the solitary exception of the Brant Goose, which is most readily overhauled in a thick fog, can generally discover you before you have a suspicion of their whereabouts.

Of the Mountain Goat I have no more to say, nor much more of the Mountain Sports at all. Five species of Grouse,—the Great Cock of the Plains, *Tetrao Urophasianus;* the Sharp-tailed Grouse, *Tetrao Phasianellus;* the Dusky Grouse, *Tetrao Obscurus;* the Rock Ptarmigan, *Tetrao Rupestris;* and the White-tailed Ptarmigan, *Tetrao Leucurus*—are natives, more or less abundant, of the Rocky Mountains—some dwelling on the highest and most difficult peaks, some in the higher valleys, and some—as the Cock of the Plains, and the Sharp-tailed Grouse—on the great plains at their base. The first of the two latter is found only on those plains which pro-

duce the artemisia, or wild wormwood; and its flesh is said to be rendered so bitter by the food, as to be uneatable by hungry men. The Sharp-tailed Grouse, of all the five varieties, is that which approaches the most nearly to the abodes of civilized men, being killed on the Missouri, as far south as 41° north latitude. It is a beautiful and delicious bird. Mr. BELL, the deservedly celebrated naturalist and taxidermist of New York, to whom I take this opportunity of offering my thanks for assistance in this work, by the loan of some beautiful specimens of birds, which to design, informs me that he has shot them in such numbers as to constitute good sport.

For the present, however, so little is known of the habits of the game of these wild, remote, and uncivilized regions, and so very few are the sportsmen, in the true sense of the word, who visit them, that I deem it enough to indicate their existence and whereabout, leaving it to a future edition, if necessary, after American arts and civilization shall have followed the march of American arms, to deal more at large with the game of the lately conquered territories. I believe all the game, in the proper sense of the term, which they do contain, from the extreme northern to the utmost southern limit, has been named. It will be time to speak of the how, the when, and the where to shoot them, when there shall be the who to do so on the ground.

In the meantime, the letters and anecdotes collected by those gallant explorers of the remotest districts, and dwellers on the outmost frontiers of the United States, the officers I mean of the American army, will rapidly and surely add to our knowledge on these points.

For to their credit, and to the honour of West Point, be it spoken, that nine-tenths of all the correct information we possess, of the geography, geology, topography, and natural history of the farther Territories and Districts, apart from mere verbiage and fable, come from the members of the one, and the graduates of the other.

A large command, I observe, has lately received the route for California; and when once they shall have got warm in their new quarters, we may look for some authentic information as to the habits of many animals now—like that concerning which I am now writing—so vaguely described as to be almost fabulous.

I hope, *en passant*, that when all or any of them wish to give the world at large a correct idea of the *diet* of particular beasts or birds, they will descend a little more to niceties than Captain Wilkes has condescended to do, in describing that of the Grizzly Baar. "Its food," says the gallant Captain, "is the same as that of the Indians, and varies with the seasons." We presume that he might have added, "and of the whites," since his meaning is evidently that its food is *whatever it can get;* which, in those regions, is, in fact, as all know who have read Fremont's Journal, the food of all who visit them—except, by the way, that I never heard of either white or Indian supping upon *man*, which, unless foully belied, is a favourite *plat* of my friend the Bear.

TURKEY SHOOTING.

UNDOUBTEDLY the most delicious, as it is the largest and noblest, of all gallinaceous game, there is yet little sport in its pursuit, and beyond mere proficiency with the rifle, little skill required to kill it. The case is the same with this, as with all other wild and forest-haunting fowls and animals. In the size of the game, and its variety, or its excellence, depends all the excitement of its pursuit and capture. It is extremely wild and wary, running in flocks when alarmed, at such a rate that it is difficult for a speedy dog to overtake it, and never, so far as I have heard or read, lying close enough to allow itself to be stood by Pointers or Setters, or to be shot on the wing.

The ways adopted for shooting it, are therefore, all dependent on ambush or stratagem, the shooter either concealing himself in some place which commands a view of the spots on which they are in the habit of scratching and removing the dry leaves, in order to pick up their food, or making use of a sort of pipe or call by which the cry or yelp, as it is termed, of the female may be simulated so exactly, as to bring the old males, or gobblers, within gunshot, almost unfailingly. Mr. Audubon relates an occurrence which befel himself, indicating the singular boldness, if it should not rather be called stupidity, of the male birds during the breeding-season, and the facility with which they may be pot-hunted at that time.

"Whilst speaking of the shooting of Turkeys," says he, "I have no hesitation in relating the following cir-

cumstance, which happened to myself. While in the search for game, one afternoon late in autumn, when the males go together, and the females are by themselves also, I heard the clucking of one of the latter, and immediately finding her perched on a fence, made toward her. Advancing slowly and cautiously, I heard the yelping notes of some gobblers, when I stopped and listened, in order to ascertain the direction in which they came. I then ran to meet the birds, hid myself by the side of a large fallen tree, cocked my gun, and waited with impatience for a good opportunity. The gobblers continued yelping in answer to the female, which all this time remained on the fence. I looked over the log and saw about thirty fine Cocks advancing rather cautiously toward the very spot where I lay concealed. They came so near, that the light in their eyes could easily be perceived, when I fired one barrel, and killed three. The rest, instead of flying off, fell a strutting round their dead companions, and had I not looked on shooting again as murder without necessity, I might have secured at least another. So I showed myself, and marching up to the place where the dead birds were, drove away the survivors."

Had the kindly-disposed clucking female been absent, an implement made, I believe, from the pinion-bone of the bird itself, affords an imitation so perfect of the cry of the Turkey, that not the unsuspicious birds alone are lured within reach of men far less scrupulous than the worthy naturalist—men who would never pause to consider whether the game could be used or not, but who would go on killing, like the Tiger or the Grizzly Bear, for the mere love of killing, without either skill or excitement—but that these gallant imitative gobblers deceive one another, and lure up to their log some rival hunter, who, hearing the well-simulated cry responsive to his own, and seeing the bushes shake, speeds his unerring bullet to the mark, and pays the musician for his amatory notes, by what the Turkeys, could they reason, would doubtless consider a well-merited and expiatory death.

The fairness of these gentry in the way of sporting, may be estimated by the following observation, quoted, like the above, from Mr. Audubon :—" During winter, many of our *real* hunters shoot them by moonlight, on the roosts, where these birds will frequently stand a repetition of the reports of the rifle, although they would fly from the attack of an owl, or even, perhaps, from his presence." The *italics* of the word *real* are Mr. Audubon's, not mine, and I scarcely know what he means to imply by the term, unless that the fellows whom he so denominates, shoot for the worth of the game, not for the sport, and are, in fact, what I should call *real* poachers, and utterly unworthy of the name of hunter, much less sportsman, with both which names, thank heaven! some prestige of fair play and sense of honour is still connected, were it not so, as well be at once the butcher; and where the difference between the greenwood and the shambles?

The best thing that can be said in defence of such practices, is, that except its flavour and its beauty, the Wild Turkey has no game quality about it. It sneaks through the grass or bushes with what Mr. Audubon picturesquely terms " a dangling straggling way of running, which, awkward as it may seem, enables them to outstrip any other animal." The same gentleman observes, that he has often pursued them for hours in succession, on a good horse, without being able to compel them to take wing, and has ultimately given it up in despair.

The nearest approach to fairness, or sport, that is ever attempted with regard to these birds, is to train a fast yelping cur, or terrier, to run into them on full cry, flush them, and after forcing them to rise in different directions, chase them, still yelping, to the trees, on which they alight, and out of which the hunter picks them one by one with his rifle, or BB shot.

Such sport is all very well for those gentlemen who like it; I, for one, am always delighted to see a Wild Turkey, on the board well roasted, especially if he be

stuffed with *truffles*, and served up with well-dressed bread-sauce; but I would not give the least palatable mouthful of him, no not his *undevilled* gizzard, to pot-hunt a thousand in so unsportsmanlike a style.

There is no accounting for tastes, however. I have an excellent friend, and a keen sportsman too, who constantly tells me, that he would just as much think of shooting Canaries in a cage, as Woodcock, which in his contempt he classes as *little birds*. By the way! I have seen him do singular execution on the said little birds trencherwise,—but he marvels greatly when I respond, that I should find just as much sport in ensconcing myself behind one of the columns of the Astor House, and shooting the first omnibus-horse that came panting and groaning up Broadway, as I should in standing to leeward of a runaway, and blowing a charge of buckshot through a great terrified Deer, at ten paces' distance, after bleating or whistling at him first, so as to make him halt in dumb terror, and give me a point-blank shot.

To constitute sport for me, several things are necessary. In the first place, the animal must be game; in the next place, there must be both skill and system requisite to his destruction. Again, he must be dealt with according to the law of chivalrous and honourable sporting; and lastly, there must be either peril, or the excitement of rapid pursuit and emulous competition in his pursuit.

Barking Squirrels requires great skill, and is a very nice amusement, I dare say; so is shooting Swallows on the wing, for those that like it,—and the latter requires by far the greater combination of qualities in the performer, of the two. Neither of them, however, are Field Sports, for neither of the animals are game.

And thus having run my brief circle, I find myself at the spot whence I started—my race is run—my shaft is shot: and may I hope that I part from thee, if uninstructed, at least not all unentertained, gentle Sportsman, and I trust not, ungentle Reader; and that some thought of me may dwell with thee, amid the sere leaves

of the autumnal forest, or on the boundless prairies of the West; and that between us two, although we ne'er have met, and ne'er, it is most like, shall meet, some kindliness of thought, some touch of mutual friendship, may exist, born of tastes kindred, and pursuits common, to all who take delight to be held Sportsmen. Good sport to thee, and fare thee well; and at the close, sometimes, of a slashing run, or of a capital day's shooting, think upon one who would fain have been there, and remember that every one of our sporting brotherhood, who is clear in the spirit, and staunch in the principle, hath a friend ever, and willing servant in

FRANK FORESTER.

THE CEDARS,
AUGUST 1, 1848.

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APPENDIX (A).

THE FISH AND FISHING

OF NORTH AMERICA.

A sort of half promise, made in the earlier portion of this work, induces me to add a few words, under this head, though they will be so brief and of so general a nature as to come more befittingly under the form of an Appendix, than into the body of the work itself.

In Field Sports, Fishing cannot properly be included, although it is so decidedly a branch of Sportsmanship, that it would scarcely be proper to pass it over without some notice; and yet to so brief a space must my remarks be limited, that anything more than a few of the most passing hints, would be worse than absurd, and impertinent.

The Fishing of the United States and British Provinces of North America is, to say the least, not inferior to the Shooting and Hunting; more especially in the Northern and Eastern Districts of both.

In Maine, from the mouth of the Kennebeck, eastward, Salmon and Sea Trout are abundant, though they are not, for the most part, much taken with the rod and line, the New England waters, so far as Salmon are concerned, being for the most part virgin of the Fly. In Nova Scotia, however, and New Brunswick, such is not the case; and there, as well as in Lower Canada, so far up as the Thousand Islands, immense sport is had annually by amateurs with this king of fishes. The St. John's, the St. Lawrence, and all their tributaries, abound with Salmon of the largest size and most delicious quality, and with Sea Trout beside—although not in such hordes, as they affect in the waters which fall eastward, like the Richibucto, into the Bay of Gaspe.

Below Quebec, the fishing is excellent, quite down to the mouth of the St. Lawrence; and in the Chaudiere, the Jacques Cartier, the St. Maurice, the Ottawa, and all the other rivers, so far up their courses as they are able to penetrate, before reaching impassable cataracts.

In Lake Ontario they are taken abundantly with the net; but will not rise to the fly, or at least rarely, if at all; and thence, through the Oswego River, they make their way into Cayuga, and, if I am not mistaken, Seneca Lake also, in the interior of the State of New York; but in neither of these have I ever heard of their being taken by the fly. Southward and westward of this, the Salmon exist no longer; although I believe, in former times, they were found so far south as to Virginia—certainly to the Hudson and the Delaware—now, alas! until the sportsman strikes the Columbia and the streams falling from the westward watershed of the Rocky Mountains into the Pacific Ocean, not a Salmon shall he find westward of the Kennebeck or south of the St. Lawrence.

Trout of small size, but delicious flavour, swarm in all the mountain brooks of the Northern and Midland States, until you reach the Virginia Alleghanies. In the Western States, and the rivers running thence northerly, into the Great Lakes; or southward and westward into the Ohio, Missouri, and Mississippi, the Trout is not found; but I believe it re-appears in the north-western rivers with an easterly course.

In Lake Superior and the Falls at the outlet of that grand sheet of water, they are again abundant, with a superb variety of the Salmon—*Salmo Amethystinus*—so called from a purplish tinge on his teeth—which, though in some respects analogous to the *Hucho* of the Saave and Draave, and of the Norwegian and Swedish rivers, is peculiar to these waters.

There is another species of Salmon, generally known as the Salmon-Trout, a heavy, dull-coloured, deep-water fish, which will not rise to the fly, but is taken in deep water, with a dropline and a piece of pork on a cod-hook, is common to all the inland ponds and lakes of America, from Pennsylvania eastward; but it is a worthless fish, either for sport or for the table.

The Trout of Long Island, especially the southern side, in the salt creeks, are deservedly famous—a fine, deep-coloured, well-formed, richly-spotted fish, running from one-half to three pounds, and occasionally to five, beyond which weight it is rarely caught in the United States.

In the lakes of Hamilton county and the rivers running thence into the St. Lawrence, the Brook or Spotted Trout, are also taken, up to three pounds, and sometimes even to

five and six; but elsewhere, as a general rule, Trout rarely exceed two and a half pounds, and in most places that is called a monster.

To speak generally, Trout, though much more numerous, and much more easily taken than in Europe, do not run to anything like the size; and another peculiarity is, that they are rarely taken in the large rivers, at least after they have become large. They may be taken with all the flies usual in England, but with a much coarser tackle, and with a larger hook, which is decidedly more killing in America.

Other fish there are, the name of which is legion; the best, perhaps, of these, and the most sporting—after the Trout—is the Black Bass of the Lakes, which will rise freely to a large red and gray fly, made of Macaw, or Parrot and Silver Pheasant, or Guinea-fowl. The Pike, Maskalonge, Pickerel, and Striped Bass, all afford good sport to anglers in different waters; and to to the southward and west, the Catfish grows to a gigantic size. Sturgeon are abundant in all the larger rivers, but are little used as an article of food. Eels, Perch, and Bass, of many varieties, also afford sport to beginners, and minister to epicurean tastes; there is also a fish called "Trout," to the southward, which is certainly not a Trout, though I do not know its correct appellation, which is eagerly pursued, and considered a game fish.

For my own part, I care little for any species of Fishing, but fly-fishing for Trout or Salmon, and perhaps for Black Bass—though I have never tried them; but trolling or spinning for Bass and Maskalonge is said to be excellent sport for those who affect.

The art piscatorial is, comparatively speaking, little understood or practised in the United States, bait-fishing being in vogue, even for Trout, and an accomplished fly-fisher—though the number of them is now increasing, *rara avis in terris nigroque simillima cycno.*

With these few hints, I cry hold, enough—there is matter for a volume on the subject; and a most excellent one might be compiled and written on the subject. In the meantime, I commend my friends and readers to the beautiful American edition of Walton's Angler, with notes and addenda, lately published by Messrs. Wiley and Putnam of New York, under the auspices of that distinguished scholar and divine, the Rev. Dr. Bethune, of Philadelphia.

APPENDIX (B.)

SPORTING NOMENCLATURE.

It has been suggested to me by a friend, from whom no suggestion is to be disregarded, William T. Porter, Esq., of the Spirit of the Times, that the appropriate sporting nomenclature and terms are so little understood, or so much neglected here, that a brief compilation of the most remarkable in general use, would be an addition to this work, not unacceptable to the sporting world of America; and agreeing with him in the fact, I have readily fallen into his views.

I shall proceed, therefore, to give first, the technical name for a single hatching of young from every game-bird—that I mean which we call a *brood*, when speaking of chickens—I shall then go on to the technical term for larger collections of game-birds, such as we should call flights or flocks, if speaking of small birds; and lastly, I shall point out to what birds, or animals, the words brace, leash, and couple, are properly applicable.

Turkeys, a single hatching of,	is a	*brood.*
*Pheasants "	" "	*nide.*
*Partridges,	" "	*covey.*
†Grouse	before they can fly,	*brood.*
"	afterward,	*pack.*
Quail,	"	*bevy.*
Woodcock,	"	*brood.*
Snipe,	"	*brood.*

For large flocks of wild-fowl, we say of—

Swans, a *whiteness.*

Geese, a *gaggle.*

Brent, a *gang.*

Duck, a *team*,—smaller number, a *plump.*

* Observe here, that neither Partridge nor Pheasant existing in America, the words *nide* and *covey* are useless. What is generally called, therefore, a *covey* of *Partridges* is a pack of Ruffed Grouse.

† When we use the term Grouse alone, the Pinnated Grouse is understood to be intended.

WIDGEON, a *company*, or *trip*.
TEAL, a *flock*.
SNIPE, a *whisp*.
PLOVERS, and all Shore Birds, a *flock*.
BITTERNS and HERONS, a *sege*.
LARKS, an *exaltation*.
GROUSE, PARTRIDGE, QUAIL, } several hatchings united, a *pack*.

The young, not full-grown, of GROUSE are *cheepers*, of QUAIL *squeakers*, of WILD-DUCK *flappers*.

As many as go together of—
BISON, *vulgo* Buffalo, STAGS, MOOSE, CARIBOO, } are a *herd*.
ELK, a *gang*.
WOLVES, a *drove*.

The female of the—
BISON, MOOSE, CARIBOO, } is a *Cow*.
ELK, *Doe Elk*.
STAG, or HART, *Hind*.
BUCK, *Doe*.

The terms *Stag* or *Hart*, or *Hind*, are applied to the RED DEER.
" *Buck*, and *Doe*, " FALLOW DEER.

The Deer of America is nearly akin to the RED DEER, and has no relation to the FALLOW DEER; therefore, unless as applied to the Goat or Antelope, as a qualification of sex, the words *Buck* and *Doe* are misnomers in American Sporting.

Two GROUSE, " PHEASANTS, " PARTRIDGE, " QUAIL, " HARES, " LEVERETS, } are a *brace*,—three are a *leash*.
Two WOODCOCK, " SNIPE, " WILD-FOWL of all kinds, " PLOVER, and Shore Birds, " RABBITS, } are a *couple*,—three are a *couple and a half*.

And the applying these terms *vice versâ* is a bad sporting

blunder. All large game, as Deer, Swans, Geese, Herons, are numbered numerically, as one, two, three, &c.

Two HOUNDS,
" HARRIERS, } are a *couple*,—three are a *hurdle*.
" BEAGLES,

Two POINTERS,
" SETTERS,
" SPANIELS, } are a *brace*,—three are a *leash*.
" GREYHOUNDS,
" TERRIERS,

All other dogs are reckoned numerically.

By a pack of hounds, five-and-twenty couple is generally understood, though it is not usual to take out, except where the woods are very large and dense, above eighteen or twenty couple.

When a STAG breaks covert the cry is *tayho!*
" FOX " " *talliho! whoop!*
" HARE, found sitting with Harriers, *tantaro!*
" " " with Greyhounds, *soho!*
To make POINTERS or SETTERS stand *toho!*
" " " drop to shot, *charge!*
" " " come behind, *heel!*
" " " careful, *steady!*
" " " rise from the charge, *hold up!*
" " " hunt for killed game, *seek dead!*
" " " when found, *fetch!*

When any animal is killed before hounds, the death halloo is invariably *who-whoop!*

When any animal turns on the hounds, he is *at bay!*

When a STAG is driven by hounds to water, he *soils!*

When a FOX " " to ground, he *earths!*

When an OTTER, after diving, breaks water, he *vents!*

And, lastly, to correct some very common errors of parlance,—A Horse never *runs;* he walks, ambles, trots, paces, canters, gallops. These are all his paces.

A Horse is *by* his sire, and *out of* his dam. Not *vice versâ*, as the common phrase goes here.

A male Horse is a *stallion*.

A collection of Horses is a *stud*. The application of the latter term to the male Horse, is not merely *vulgar* squeamishness, but sheer nonsense.

The female of a Fox is a *vixen;* of a Dog, a *bitch*, not a *slut;* and the use of the latter word is far more objectionable of the two, as applying an improper consciousness.

APPENDIX (C.)

A FEW MEMORANDA,

AND BRIEF RECEIPTS FOR SPORTSMEN.

It is well that a Sportsman, without being anything of an epicure, should, like an old campaigner, know a little of the art of the cuisine; otherwise, in the country, even in this country of abundance, he is very likely to fare badly, where, with a very little knowledge and a very little care, and having the precaution to carry with him a few simple condiments, he can live like a prince.

In the first place, he should always carry his own black tea with him, if he would not be compelled to drink execrable rye-coffee. I commend him also to be his own liquor-bearer, as the spirits in country places are usually execrable, especially the rye-whiskey of Pennsylvania and the West.

If, however, he determine to take his chance in this matter, I advise him, in all cases, to eschew brandy, which is the most easily adulterated of all liquors, and, when adulterated, the worst.

In New York and New Jersey, the cider-whiskey, in country places, is decidedly the best thing to be got; it is too cheap to adulterate, and it is a wholesome liquor in itself —when very old, it is a very fine liquor—the taste, if disagreeable, as it is apt to be at first, is completely disguised by sugar and lemon-juice—and, whether hot or cold, it will be so found a very tolerable beverage.

The best receipt I know for cold punch, and that which I always use, is, to one tumbler of crushed sugar, one and a-half of spirit, six of water, the peel of two lemons, and the juice of one.

Or, if you use lemon syrup, which is far more convenient to carry, half a tumbler thereof to the above proportions.

In cold weather, a very palatable hot drink may be made of common draft ale, or bottled porter, by simmering it slowly,

with a few table-spoonsfuls of sugar, one of ginger, and a nutmeg grated to every quart of malt liquor, and two wine-glasses of spirit—gin is the best—to every quart.

This will neutralize the acidity of the malt liquor, even if it is a little stale and even acid.

To this end, and for all reasonable wants in the way of cookery, I say, carry with you a few pounds of black tea, a few bottles of lemon-syrup, one or two ditto of Harvey sauce, powdered ginger, a few nutmegs, some Cayenne pepper, some cloves; and, if you are wise, add thereunto a few pounds of rice, and the same of pearl-barley, and a flask or two of salad-oil.

With these, if you can persuade your country hostess, instead of boiling the five minutes ago slaughtered cock on which you are destined to dine, to skin it, quarter it, and stew it for at least three hours, with a bit of salt pork, an onion or two, *ad libitum*, and a few handfuls of rice or barley, which last should only be boiled one hour, you will feed like a prince, instead of breaking all your teeth, and dying afterward of indigestion.

The same receipt for mutton, lamb, or veal, will be found invaluable to a campaigner—for meat in the country is, nine times out of ten, tough.

As boiled cock is, however, the stand-by—and if you are travelling with your own horses, and arrive late at night, nine times out of ten, all that you can get, without waiting longer than is agreeable—it is an excellent plan to carry a pair of tender chickens with you from home, ready cleaned and prepared for cooking.

These, when your cocks are killed at night, and ready for consignment to the gridiron, you prevail on your hostess to substitute, at the last moment; and carry hers forward, to serve the same purpose on the following day. This, with a little tact, you can generally manage, without offending the *amour propre* of the lady of the hostelry, though somewhat touchy they are wont to be, if they fancy the droits of the cuisine invaded or infringed.

For breakfast, if you do not choose to wait to have a hot meal cooked, which, if you do, you will lose the better part of the day, have the remnants of your supper laid out, with bread, butter, and milk, before you go to bed; and the next morning beat up the yoke of a raw egg or two with your milk, add some sugar and ginger to taste, but if you are wise,

eschew the addition of the ardent, provided you aspire to a cool head and a steady hand.

After the first day, it is your own fault if you do not fare well—or your gun's—which is the same thing; but observe, and—instead of allowing them to attempt to roast or broil your game, by doing which they will infallibly spoil it—cause whatever you propose to use, Quail, Ruffed Grouse, Woodcock, Hare, Snipe—and if you cook it in this way, select those which are so hard hit as to be disfigured and unfit for keeping—to be cleaned, quartered, and placed in a large pot, with some pieces of fat pork, cut small, potatoes, an onion or two, a little chopped parsley, salt and black pepper to your taste, and it will be a vast addition, if you can get a red pepper-pod or two, which are generally to be found at every country tavern, and a mushroom or two, which you often find and pocket in your perambulation over upland pastures.

The less water you put into the pot,—provided there is enough to liquefy the mass, and prevent it from burning,—and the slower you boil it, the better.

When done, you will have a potage *à la Meg Merrilies*, which George IV. himself, or Apicius might envy you.

Hawker says that if you skin and quarter any kind of Wild-fowl, which are too fishy to eat, as Gulls, Coots, or Curlews, boil them four hours in a quart of water to each bird, with onions, and add to it, when on the point of serving it, a spoonful or two of Harvey sauce, some lemon-juice, cayenne, and a gill of wine, you will have a very palatable mess.

I never tried it, but it is well worth trying, especially on the sea-shore, where, in Bay Snipe, or Fowl-shooting, one is apt at times to fare hungrily enough.

The little American Hare, *vulgo* Rabbit, would doubtless be delicious, either in this way, or stewed with rice and pork, as recommended for the fowl.

At all events, nothing can be conceived better than a pie—not that abomination called a pot-pie—but a regularly baked pie, in a deep, earthern dish; if this cannot be had, a tin pan will serve the purpose—either of the Hare, nicely skinned and dissected, with some pieces of fat salt pork, a few hard eggs, a red pepper-pod or two, and mushrooms, if possible—I am supposing that you cannot obtain a rump-steak, for if you can, it should take the place of the pork—the mushrooms

should be fried before being put into the dish—it should be well seasoned, and baked very slow. Either at home or abroad, it is an undeniable *plat*, and, after a hard day's shooting, it will act as a restorative worth all the ambergris and essences of all the cooks from the days of Lucullus to Ude.

It is well on a trip of the kind we are supposing, to be provided with a few gentle medicines, in case of accidental illness. For this purpose, nothing is better than to carry along with you a bottle of Henry's calcined magnesia. Two table-spoonsful of this dissolved in water, and immediately succeeded by a tumbler of hot lemonade, will produce its effects very rapidly and sufficiently, though mildly.

For a cold, or after a very severe fag in snow or cold water, a hot foot-bath, with a handful of mustard, will produce a pleasant and salutary effect.

It is well also to know that a vapour-bath can be had anywhere, at five minutes' notice—*thus:* under a cane-bottom chair place a large basin full of half water, half vinegar; sit down on the chair, in complete dishabille, draw a couple of blankets close about your throat, letting them fall down over you like a tent, their extremities lying on the floor; then have a handful of halfpence, or any other pieces of metal, which have previously been made *red hot*, thrown suddenly into the basin, and you will be steamed to your heart's content.

A good formula for a pill, of strong aperient qualities, which will not need a black draught to wash it down on the following morning, is this—

R.	Pulvis hydrarg	12 gr.
	Comp. ext. colocynth.....	a a
	Scammon.....	a a

Divide into six pills, or if a large pill is objectionable, twelve. If the former, two, if the latter, four pills, will make a very sufficient dose.

These simple medicines, a box or two of seidlitz powders, a case of lancets—without which no sportsman should ever take the field—a piece of adhesive plaster, do. of court plaster, and a bottle of Bertine's liniment, for all blows, bruises, or rheumatic pains, will enable you to deal with all ailments, which may be dealt with without a doctor's care, and will enable you, like enough, to avoid a long doctor's bill, on your return from your excusion of pleasure.

A very few more words, and I have done; but these last

words are not altogether unimportant, for without good tools no man can shoot well; and to keep good tools good, requires both art and method.

Imprimis, *never* put a gun away dirty,—even after one shot, if you have a fine and valuable piece, and wish to keep it fine and valuable, take it apart, and clean it thus.

First, wash it thoroughly with cold water, and very coarse rough tow, changing the water constantly, until it returns perfectly clear after being pumped backward and forward through the barrels.

Dry the barrels externally with a rough cloth.

Pour hot water into the muzzles, till the barrels are full; and then rub the insides of the barrels dry with constant changes of tow, until the inside of the barrels, and the tow on being withdrawn, are not only dry, but hot.

Then with a little very fine chicken or goose grease, or watchmaker's oil, just touch both the exterior and the interior of your barrels; with an old tooth brush rub dry, and slightly anoint the inside of your hammers and the cones; stop the muzzles with a plug of greased linen, and lay a single fold of the same over your cones, before you let your hammers down.

A gun will keep thus for a long time without rusting; if, however, you wish to lay a valuable gun away for months or years, the better way is to warm the barrels as hot as the hand can bear them, and then fill them brimful of melted tallow; let this grow cold within them, and if well greased without with neat's-foot oil, they will remain impregnable to rust, or weather, or decay, for years. When wanted for use, the tallow can be melted out gradually by exposure to a slow fire.

The more seldom locks are taken off the better, if the gun is water-tight; and even when they are taken off, the less often they are taken to pieces, the better again.

If, however, taken to pieces they must be, here is the *modus operandi:*—

Put the lock to full cock. Cramp the main-spring Let down the cock, and the main-spring will fall off. Unscrew and take out the scear. Undo the two screws, and take off the bridle. Unscrew and take out the scear-spring. Unscrew and take off the cock. Take out the tumbler.

To put it together again:—

Put in your tumbler and screw on the cock. Screw on the

scear-spring. Set on the bridle, with two upper screws. Put in the scear. Let down the cock, cramp the main-spring, hook the end of it to the swivel, move it up till it catches on the plate; uncramp it, and your lock is together.

I would, however, advise no tyro to attempt this, as it is very rarely necessary to be done, and can, under all ordinary circumstances, be postponed until a gunsmith can be found to do it. Natheless, like Columbus' egg, it is not difficult to be done, when once you know how to do it.

I disapprove the use of wire, brush, sand, or anything of the sort in barrels, which, I believe, except in extraordinary rapid shooting, are much less liable to become leaded, than is generally supposed.

I am in the habit, however, at the end of a severe season's work, of putting my gun into a good workman's hands, and having the breeches taken out, so that I can inspect the barrels myself. If leaded, they can be reamed out in a few moments with a blind borer, without half the risk of damaging the barrels that is incurred from the brush or sand; though, by the way, I disbelieve the power of a brass wire-brush to scratch polished iron barrels.

The best powder in the world for Upland Shooting is Curtis and Harvey's diamond grain—by best, I mean strongest and cleanest. Next to that, is John Hall's glass gunpowder; and, like the horses which ran against Eclipse, all the rest are nowhere. Dupont's eagle powder is strong, but filthy beyond measure. Ten shots with it dirty a gun more than a canister full of the diamond. The Scotch powder has a reputation, but does not deserve it. It is neither strong nor clean.

For Fowl Shooting, Hawker's Ducking Powder, by Curtis and Harvey, is the best of all odds.

Whatever sized shot you use, always use it unmixed. If you use two or more sizes, the heavy shot casts off the lighter to the right and left, at all sorts of tangents.

The best copper caps in the world are Starkey's best central fire waterproof, and the next best are Westley Richards' large heavy caps. Both are dear, but they will save their own cost in certainty and cleanliness. The anti-corrosive caps I don't like at all—they should be called corrosive. The French caps are very good for pocket pistols.

Powder should always be dried before using, on a hot China plate, but beware of sparks.

For shooting apparatus of all kinds, pouches, belts, flasks, liquor-flasks, and the like, Dixon and Sons, of Sheffield, are a hundred to one against the world.

I have done,—therefore adieu, friend. You are set fairly a-field; if you do not succeed, it is not my fault,—fare thee well.

THE END.

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